



Council Meeting Agenda
July 1, 2024
6:00PM

1. Call to OrderMayor Ed Hooks
2. Invocation.....Pastor Hunter Strength, Beacon Baptist Church
3. Recognition of Retiring City Manager Chris RollinsMayor
4. Public CommentsMayor
5. Consent Agenda-
 - a. Approval of Minutes- June 3, 2024- Regular Meeting
 - b. Resolution- Designation of July as Park and Recreation Month
 - c. Final Plat- Cambridge Park Ph. 3B
 - d. Final Plat Reapproval- North First Street Townes Ph. 1
 - e. Final Plat Reapproval- Oakwood Ph. 1A
6. **Public Hearings-**
 - a. Conditional Rezoning- 506 W. Holt Street.....Ashley Ownbey, Development Director
 - b. Conditional Rezoning- Saddle Club Road..... Ms. Ownbey
 - c. Ordinance to Extend Corporate Limits- Voluntary Contiguous Annexation- Orange County Investors Partnership- Tracts 1 & 3 R&L Carriers.....Lawson Brown, City Attorney
 - d. Conditional Rezoning- Orange County Investors Partnership- Tracts 1 & 3 R&L Carriers..... Ms. Ownbey
 - e. Ordinance to Extend Corporate Limits- Voluntary Contiguous Annexation- Orange County Investors Partnership and Joe Farrington- Tract 2 Buckhorn Industrial Mr. Brown
 - f. Conditional Rezoning- Orange County Investors Partnership and Joe Farrington- Tract 2 Buckhorn Industrial Ms. Ownbey
 - g. Conditional Rezoning Amendment- Hendon Tiller- Tractor Supply..... Ms. Ownbey
 - h. Preliminary Resolution in Support of Financing for Lake Michael Dam Spillway Project Daphna Schwartz, Finance Director
7. Contract Award for Lake Michal Dam Spillway Replacement.....Franz Holt, City Engineer
8. Presentation of Social District- Tanger Amanda Slayden, Tanger General Manager
9. Presentation of Long-Range Utility Plan UpdateMr. Holt
10. Presentation of Comprehensive Land Development Plan Steering Committee..... Ms. Ownbey
11. Presentation of Third Street Tank Lighting and Logo Placement Kyle Smith, Utility Director

12. NCDOT Property Donation- Conveyance of 60 +/-acres- Hwy 119 North Mr. Brown

13. Discussion of Appointing Interim City ManagerMayor

14. AdjournmentMayor



The Mebane City Council met for its regular monthly meeting at 6:00 p.m., Monday, June 3, 2024 in the Council Chambers of the Glendel Stephenson Municipal Building located at 106 E. Washington Street.

Councilmembers Present:

Mayor Ed Hooks
Mayor Pro-Tem Tim Bradley
Councilmember Katie Burkholder
Councilmember Sean Ewing
Councilmember Montrena Hadley
Councilmember Jonathan White

Also Present:

Chris Rollins, City Manager
Preston Mitchell, Assistant City Manager
Lawson Brown, City Attorney
Stephanie Shaw, City Clerk
Ashley Ownbey, Development Director
Franz Holt, City Engineer

Mayor Hooks called the meeting to order. Pastor Sammy Ballard of First Baptist Church of Mebane gave the invocation.

Mayor Hooks and Council Member Katie Burkholder recognized Rebecca Brouwer and presented her with the following resolution:

**Resolution of Recognition Honoring Rebecca Brouwer for her
Outstanding Contributions to the Mebane Community**

WHEREAS, Rebecca Brouwer has demonstrated an unwavering commitment to enhancing the quality of life in the City of Mebane through various groundbreaking initiatives; and

WHEREAS, under Ms. Brouwer's leadership, the Mebane Citizens Academy was established in 2019, fostering a greater understanding and cooperation between citizens and city officials; and

WHEREAS, Ms. Brouwer spearheaded the creation of Mebane on the Move and the Mebane Wellness Coalition, which, in partnership with the Mebane Recreation & Parks Department, now offers the esteemed "MebFit" program providing free fitness classes to the community; and

WHEREAS, Ms. Brouwer played a key role in the establishment of the Mebane Community Garden located behind Fire Station #2, offering community members space for their gardening endeavors and enhancing the city's green spaces; and

WHEREAS, through her dedicated efforts, the City Trails network now features beautiful, permanent trail markers, facilitating outdoor activities and promoting a healthy lifestyle among residents; and

WHEREAS, Ms. Brouwer, as a founding member and appointed Chairperson of the Bicycle Pedestrian Advisory Committee, has been instrumental in creating a Master Plan that prioritizes bicyclist and pedestrian inclusivity within the city planning for both 2014 and an updated plan for 2024; and

WHEREAS, through initiatives like the Bike Rodeos, in collaboration with the Mebane Police Department, Ms. Brouwer has contributed significantly to bicycle safety and accessibility, giving away free helmets, and offering skills guidance; and

WHEREAS, Rebecca Brouwer has championed the inclusion of workout stations and bike racks at city recreational facilities, including the Mebane Arts & Community Center, encouraging physical activity among community members; and

WHEREAS, in collaboration with the City of Mebane, The New Leaf Society, and Impact Alamance, Ms. Brouwer assisted with the joint investment and beautification of Holt Street Park, creating a space where natural elements encourage creativity and imagination in children; and

WHEREAS, her involvement in the Recreation and Parks Master Planning has ensured long-term strategies for enhancing Mebane's recreational and park facilities;

NOW, THEREFORE, BE IT RESOLVED, that the Mayor and the City Council of the City of Mebane hereby recognize and commend Rebecca Brouwer for her exemplary service, profound impact, and dedication to the community of Mebane.

BE IT FURTHER RESOLVED that this Resolution be entered into the official records of the City of Mebane and that a copy hereof be duly presented to Rebecca Brouwer in recognition of her outstanding contributions to the community.

ADOPTED this 3rd day of June 2024, by the Mayor and City Council of the City of Mebane.

Mayor Ed Hooks

During the Public Comment Period, Josh Woodard, 500 S. Third Street, Mebane, shared the idea of having citizens plant native wildflowers and plants in easement land in adherence to the city's ordinances. He also said he would like to encourage the city to follow the same theme along the planned greenway.

Mayor Hooks gave an overview of the Consent Agenda as follows:

- a. Approval of Minutes-
 - i. April 11, 2024- Special Meeting- Budget Work Session
 - ii. May 6, 2024- Regular Meeting
- b. Voluntary Contiguous Annexation Petition- R & L Carriers
- c. Voluntary Contiguous Annexation Petition- Buckhorn Industrial
- d. Final Plat Approval- Peartree Homes
- e. Final Plat Reapproval- Cambridge Park, Phase 3A
- f. Verizon Wireless's Lease Optimization Program
- g. Interlocal Agreement between the City and Alamance County for the Collection of Occupancy Tax
- h. Amendment to the Efland Fire Services Agreement
- i. FY 2023-24 Budget Ordinance Amendment

Mr. Bradley made a motion, seconded by Mr. Ewing, to approve the Consent Agenda as presented. The motion carried unanimously.

Item b.

**RESOLUTION FIXING DATE OF PUBLIC HEARING ON
QUESTION OF ANNEXATION PURSUANT TO G.S. 160A-31**

Annexation 170

WHEREAS, a petition requesting annexation of the area described herein has been received; and

WHEREAS, certification by the City Clerk as to the sufficiency of the petition has been made;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Mebane, North Carolina that:

Section 1. A public hearing on the question of annexation of the area described herein will be held at the Glendel Stephenson Municipal Building at 6:00 p.m. on July 1, 2024.

Section 2. The area proposed for annexation is described as follows:

Lying and being situate in Cheeks Township, Orange County, North Carolina, and being all the property referenced as Tax ID: 9834-47-5147 (Orange County Investors (Deed Book 475, Page 583), Tax ID: 9834-45-4704 (Orange County Investors (Deed Book 6750, Page 1549), Tax ID: 9834-35-7977 (Orange County Investors (Deed Book 6837, Page 1720), Tax ID: 9834-35-7585 (Orange County Investors (Deed Book 6821, Page 1106), Tax ID: 9834-35-7650 (Orange County Investors (Deed Book 6820, Page 1516), Tax ID: 9834-35-7666 (Joe Louis Fearington (Deed Book 392, Page 394) and Tax ID: 9834-35-7842 (Joe Louis Fearington (Deed Book 226, Page 403) and being more particularly described as follows:

BEGINNING at an existing 7/8" pipe being a common corner with Jeffrey B. Ellis (Deed Book 6788, Page 546) and having North Carolina Geodetic Coordinates (NAD 83/2011) of: Northing: 845,891.72 feet, Easting: 1,935,083.10 feet and said pipe being the POINT OF BEGINNING: THENCE with the New Line of Division the following Eight (8) calls: (1) North 49°56'49" West, 363.36 feet to a new corner; (2) South 88°59'45" West, 87.85 feet to a new corner; (3) South 78°44'00" West, 42.24 feet to a new corner; (4) South 67°06'44" West, 70.75 feet to a new corner; (5) South 84°08'37" West, 206.76 feet to a new corner; (6) North 47°56'04" West, 50.35 feet to a new corner; (7) North 80°15'27" West, 37.02 feet to a new corner; (8) North 89°54'53" West, 589.48 feet to a point in the centerline of Buckhorn Road; THENCE with the centerline of Buckhorn Road the following Two (2) calls: (1) North 12°56'20" East, 113.56 feet to a point; (2) North 13°15'04" East, 183.69 feet to a point; THENCE leaving the centerline North 82°30'23" West, 52.25 feet to an existing 3/4" pipe in the western right-of-way of Buckhorn Road and being a common corner of Nepalese Investment Group LLC (Deed Book 6292, Page 570) and Buckhorn Industrial II LLC (Deed Book 6782, Page 1395); THENCE along the western right-of-way line of Buckhorn Road the following Three (3) calls: (1) with a curve to the left having an arc length of 476.29 feet and a radius of 1327.00 feet and a chord bearing and distance of North 00°13'28" West, 473.74 feet to an existing NCDOT right-of-way disk; (2) North 15°28'42" West, 196.50 feet to a point; (3) North 13°54'26" West, 86.08 feet to a point; THENCE leaving said right-of-way North 82°43'32" East, 131.59 feet to an existing axle; THENCE with a curve to the left having an arc distance of 717.75 feet and a radius of 1,000.00 feet and a chord bearing and distance of North 50°45'39" East, 702.44 feet to an existing 1" pipe w/cap in the southern right-of-way of I-85/40; THENCE with the said right-of-way of I-85/40 the following Eight (8) calls: (1) with a curve to the right having an arc distance of 386.21 feet and radius of 1352.39 feet and a chord bearing and distance of North 87°12'54" East, 384.90 feet to an existing nail; (2) South 81°53'57" East, 194.46 feet to an existing NCDOT right-of-way disk; (3) South 79°17'02" East, 176.22 feet to an existing 12" spike; (4) South 79°17'02" East, 73.81 feet to a point; (5) South 80°34'56" East, 950.05 feet an existing NCDOT right-of-way disk; (6) North 77°38'10" East, 53.81 feet to an existing NCDOT right-of-way disk; (7) South 81°00'06" East, 133.83 feet to an existing 3/4" pipe; (8) South 80°48'04" East, 22.58 feet to an existing 3/4" pipe being a common corner with MRE Propco LP (Deed Book 6753, Page 758); THENCE with the common line of MRE Propco LP (Deed Book 6753, Page 758) South 8°41'57" East, 1,209.20 feet to an existing 2" pipe being a common corner with Jeffrey M. and Barbara A. Hewlings (Deed Book 6816, Page 1129); THENCE with the common line of Jeffrey M. and Barbara A. Hewlings (Deed Book 6816, Page 1129) and Fredrick Lopiccolo et al (Deed Book 6809, Page 869) South 87°13'51" West, 1,039.11 feet to an existing 3/4" pipe; THENCE continuing with the common line of Fredrick Lopiccolo et al (Deed Book 6809, Page 869) South 8°44'36" East, 214.22 feet to an existing railroad track iron being a common corner with Dollie H. Doby (Deed Book 6363, Page 415); THENCE with the common line of Dollie H. Doby (Deed Book 6363, Page 415) South 84°34'58" West, 210.13 feet to an existing 1" pipe being a common corner with Jeffrey B. Ellis (Deed Book 6788, Page 546); THENCE with the common line of Jeffrey B. Ellis (Deed Book 6788, Page 546) South 84°39'58" West, 209.88 feet to the POINT OF BEGINNING containing 84.756 Acres or 0.132 Square Miles more or less.

Section 3. Notice of the public hearing shall be published once in the Alamance News and News of Orange, newspapers having general circulation in the City of Mebane, at least ten (10) days prior to the date of the public hearing.

Ed Hooks, Mayor

ATTEST:

Stephanie W. Shaw, City Clerk

Item c.

**RESOLUTION FIXING DATE OF PUBLIC HEARING ON
QUESTION OF ANNEXATION PURSUANT TO G.S. 160A-31**

Annexation 171

WHEREAS, a petition requesting annexation of the area described herein has been received; and

WHEREAS, certification by the City Clerk as to the sufficiency of the petition has been made;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Mebane, North Carolina that:

Section 1. A public hearing on the question of annexation of the area described herein will be held at the Glendel Stephenson Municipal Building at 6:00 p.m. on July 1, 2024.

Section 2. The area proposed for annexation is described as follows:

Lying and being situate in Cheeks Township, Orange County, North Carolina, and being all the property referenced as Tax ID: 9834-47-5147 (Orange County Investors (Deed Book 475, Page 583), Tax ID: 9834-45-4704 (Orange County Investors (Deed Book 6750, Page 1549), Tax ID: 9834-35-7977 (Orange County Investors (Deed Book 6837, Page 1720), Tax ID: 9834-35-7585 (Orange County Investors (Deed Book 6821, Page 1106), Tax ID: 9834-35-7650 (Orange County Investors (Deed Book 6820, Page 1516), Tax ID: 9834-35-7666 (Joe Louis Fearrington (Deed Book 392, Page 394) and Tax ID: 9834-35-7842 (Joe Louis Fearrington (Deed Book 226, Page 403) and being more particularly described as follows:

BEGINNING at a point in the centerline of West Ten Road having North Carolina Geodetic Coordinates (NAD 83/2011) of: Northing: 844,574.96 feet, Easting: 1,935,011.31 feet and said point being the POINT OF BEGINNING: THENCE with the centerline of West Ten Road the following Seven (7) calls: (1) South 88°37'35" West, 247.30 feet to a point; (2) South 89°31'45" West, 127.50 feet to a point; (3) South 89°38'04" West, 371.48 feet to a point; (4) North 87°44'19" West, 130.27 feet to a point; (5) North 82°30'05" West, 228.75 feet to a point; (6) North 78°13'11" West, 95.94 feet to a point; (7) North 76°50'00" West, 115.19 feet to a point in the intersection with Buckhorn Road; THENCE with the centerline of Buckhorn Road the following Six (6) calls: (1) North 10°09'48" West, 131.39 feet to a point; (2) North 2°43'44" West, 110.35 feet to a point; (3) North 0°46'49" East, 706.75 feet to a point; (4) North 0°02'17" West, 86.48 feet to a point; (5) with a curve to the right having an arc distance of 357.56 feet and radius of 1628.10 feet, a chord bearing and distance of North 06°50'34" East, 356.85 feet to a point; (6) North 12°01'20" East, 76.23 feet to a point in a new line of division; THENCE with the New Line of Division the following Eight (8) calls: (1) South 89°54'53" East, 589.48 feet to a new corner; (2) South 80°15'27" East, 37.02 feet to a new corner; (3) South 47°56'04" East, 50.35 feet to a new corner; (4) North 84°08'37" East, 206.76 feet to a new corner; (5) North 67°06'44" East, 70.75 feet to a new corner; (6) North 78°44'00" East, 42.24 feet to a new corner; (7) North 88°59'45" East, 87.85 feet to a new corner; (8) South 49°56'49" East, 363.36 feet to an existing 7/8" pipe being a common corner with Jeffrey B. Ellis (Deed Book 6788, Page 546); THENCE continuing with the line of Fay Ann Simmons Kirkpatrick (Deed Book

3676, Page 255) and Jeffrey B. Ellis (Deed Book 6788, Page 546) South 8°53'29" East, 992.15 feet to an existing 1/2" pipe being a common corner with Jeffrey B. Ellis (Deed Book 6788, Page 549); THENCE with the common line of Jeffrey B. Ellis (Deed Book 6788, Page 549) the following Two (2) calls: (1) South 87°45'54" West, 253.85 feet to an existing 3/4" pipe; (2) South 4°58'18" East, 327.87 feet to the POINT OF BEGINNING containing 49.267 Acres or 0.077 Square Miles more or less.

Section 3. Notice of the public hearing shall be published once in the Alamance News and News of Orange, newspapers having general circulation in the City of Mebane, at least ten (10) days prior to the date of the public hearing.

Ed Hooks, Mayor

ATTEST:

Stephanie W. Shaw, City Clerk

Item i.

BE IT ORDAINED by the Council of the City of Mebane that the Budget Ordinance for the Fiscal Year beginning July 1 2023 as duly adopted on June 5, 2023, is hereby amended as follows:

ARTICLE I

APPROPRIATIONS	Current Budget	Change	Revised Budget
Utility Fund - Non-Departmental	\$ 1,638,769	\$ 908,500	\$ 2,547,269

ARTICLE II

REVENUES	Current Budget	Change	Revised Budget
Utility Fund - All Other Revenues	\$ 1,097,900	\$ 908,500	\$ 2,006,400

This the 3rd day of June, 2024.

At the beginning of the public hearings portion of the meeting, Ms. Ownbey stated that it is the staff's understating that *Item 5c- Conditional Rezoning Amendment- Tractor Supply* public hearing is requesting to be continued, per the applicant, until the July 1, 2024, Council meeting. The attorney representing the applicant came forward and confirmed the request for continuation. Mr. Bradley made a motion, seconded by Mr. White, to continue the public hearing until the July 1, 2024, Council meeting. The motion carried unanimously.

A quasi-judicial public hearing was held on a request from McDonald's USA, LLC to amend a Special Use Permit to develop a restaurant with a drive-through on a +/- 1.06-acre out parcel of the Oak Manor Market Shopping Center addressed 640 N. First Street, Mebane.

Mr. Brown explained the quasi-judicial process. Mayor Hooks stated he has not had any conversations with the applicant, but he has received numerous emails from citizens, he does not vote but has not decided on this matter.

Mr. Ewing stated he has not spoken with the applicant, staff, or citizens and has not made up his mind on the matter.

Mr. White stated he has spoken with staff on this matter but has not spoken with the applicant or other council members and has not made up his mind on the matter.

Mr. Bradley stated he has not spoken with the applicant, he has shared emails with citizens thanking them for their comments, he has discussed with staff briefly but has not reached a conclusion on the matter and will make his conclusion based on the evidence presented during the hearing.

Ms. Hadley stated she has not spoken with the applicant, staff, or council members but has received numerous emails from citizens and thanked them for their comments. She has not decided at this point.

Ms. Burkholder stated that she has not spoken to the applicant, she has spoken with staff, and she also received numerous emails from citizens, whom she thanked for their comments. She said she had not decided on the matter.

Mr. White requested that Mr. Brown explain why the request is a special use permit hearing instead of a general rezoning hearing. Mr. Brown provided a detailed explanation, stating that this property was zoned 25 years ago or so legislatively and it had a special use permit issued with it under the old ordinance, one of the conditions of that special use permit was that there would not be any restaurants with drive-thru windows. He stated that is the limited sole issue that is under consideration tonight.

Mr. Bradley asked if there is any precedence historically for the Council taking up a quasi-judicial hearing to overturn a legislative decision of the Council in the past or was the previous decision for no drive-thru was a quasi-judicial decision as well.

Ms. Ownbey said the original approval was to both rezone the property and approve a special use permit. So, the rezoning would have been legislative, but the special use permit would have been quasi-judicial.

Mr. White said so, to summarize, Mr. Brown, because of the previous use decision, if certain conditions are met, a drive-thru can be allowed but if those conditions are not met, then it cannot be allowed. Mr. Brown said that is correct.

Clerk Shaw swore in the following:

Patrick Byker, Attorney representing the applicant, 700 West Main Street, Durham, NC 27701
Brian Soltz, NC Market Leader Site Manager, Sambatek 8312 Creedmoor Road, Raleigh, NC 27613
Caroline Cheeves, PE- DRMP, 5808 Faringdon Place, Ste 100, Raleigh, NC 27609
Jarvis Martin, S.R.A. Stewart, Martin & McCoy, 3604 Shannon Road, Suite 103 Durham, NC 27707
Franz Holt, City Engineer
Preston Mitchell, Assistant City Manager
Mitch McKinney, Police Chief
John Wellons, Fire Chief
Tammy Kahm, McDonald's ACM, 103 Wyseferry Ct, Morrisville, NC
Andy Austin, citizen and co-owner of Montessori School, 112 Drake Lane, Mebane, co
Justin Warren, citizen, 3360 Covington Trail, Mebane
Casey Roberston, citizen, 407 W. Crawford Street, Mebane
Walter Snowden, Appraiser, 9650 Strickland Rd Suite 103-192. Raleigh, NC 27615

Ms. Ownbey gave an overview of the request, stating that McDonald's USA, LLC is requesting to amend a Special Use Permit to develop a restaurant with a drive-through on a +/- 1.06-acre out parcel of the Oak Manor Market Shopping Center addressed 640 N. First Street). The subject property is currently zoned B-2, General Business District and there are no changes proposed to the zoning district. The request is to amend the existing special use permit and with any special use permit, the Council is charged with considering four findings which is the burden of the applicant to speak upon which includes considering the impacts to public health or safety and joining property owners, consistency with the harmony of the area and also with long-range plans. The surrounding properties are zoned B-2 General Business District, those properties are associated with the same shopping center, B-3 Neighborhood Business District, and then R-12

Residential District is across from North First Street. Surrounding uses include a shopping center, Montessori school, city pocket park, stormwater pond, and other vacant parcels. The property is located in the Mebane city limits in Alamance County and utilities are available to serve the property. The site is located in a secondary growth strategy area as identified by Mebane by Design, the city's Comprehensive Land Development Plan. This growth strategy area supports commercial uses. Currently, a provision of the special use permit that was originally approved to develop the shopping center states the only restaurants allowable on the out parcels will be restaurants with no drive-thru windows. That special use permit was approved by the Mebane City Council in December of 2002. The applicant is requesting amend the provision of the special use permit so that the out parcel may be developed for a restaurant with a drive-thru window. The amendment would only apply to this particular out parcel. The site plan has been reviewed for compliance with the Mebane Unified Development Ordinance and other City standards. Additionally, a traffic impact analysis was required by the city's local ordinance. No public roadway improvements are required for this development. The applicant would add a crosswalk at the entrance of the shopping center. Another provision of the existing special use permit is that the exterior be consistent with the shopping center, primarily through the use of brick. The applicant provided staff with a rendering which staff reviewed for consistency with the existing shopping center.

Patrick Byker, the attorney representing the applicant, McDonalds. He entered into evidence the attached Exhibit Packet which included the expert witness resumes and real estate evaluation report. Mr. Byker stated that this request is for an amendment to a special use permit that the City Council adopted on December 9, 2002, which was associated with the approval of the original approval of Oak Manor Market Shopping Center. A condition of the Oak Manor Market special use permit was that restaurants would only be allowed without drive-thru windows. The applicant is requesting an amendment so that one restaurant with a drive-thru window be built on the 1.06-acre out parcel along North First Street. He stated the prohibition of drive-thru windows would remain in place for the two out parcels along Stagecoach Road. The use of the 1.06-acre parcel as a restaurant is already permitted the only issue under consideration is the drive-through window. Mr. Byker provided statistical evidence related to how in the past the majority of quick-serve restaurant customers ate inside but now the majority use drive-thru windows. He said to address the required findings, the Council will hear from witnesses that the proposed drive-thru window will not materially endanger public health and safety, will not substantially injure the value of adjoining or abutting property values, will be in harmony with the area in which the drive-thru window will be located, and will be in conformity with the land use plan and the other plans and policies adopted by the Council. Findings will be addressed by Brian Soltz with Sambatek who designed this McDonald's. The second witness Caroline Cheeves PE Traffic Engineer with DRMP. She has eight years of experience in the field of traffic engineering, transportation planning and traffic data collection. Lastly, the Council will hear from Real Estate Appraiser Jarvis Martin who is a State Certified General real estate appraiser with over 45 years of experience. He added, based on the competent material substantial evidence provided by the testimony of these witnesses which will show that all the applicable standards and findings of the Mebane Unified Development Ordinance have been met, they respectfully request that Council approve the special use amendment to allow for a restaurant with a drive-thru window. He shared that in late April, their team sent out 58 letters regarding the drive-through window to all property owners within 600 feet of Oak Manor Market shopping center, which is double the City's required notification area. The letters informed the 58 property owners that we would hold a virtual neighborhood meeting on May 9th. The meeting was held on May 9th and 3 people attended. The Planning Board heard the matter on May 13th and unanimously recommended approval of the amendment.

Mr. White questioned if the renters of the properties were notified. Mr. Byker stated that they sent the letters to property owners from the information found on tax records and he was unsure if the property owners forwarded it to their tenants. Mr. White then asked if the Montessori school was one of the meeting attendees. Mr. Byker said not to his knowledge.

Mr. Bradley questioned who would be responsible for maintenance on the property should the request be approved. Mr. Byker said McDonald's would be purchasing the property, not leasing, and McDonald's would be responsible for the maintenance.

Mr. White stated that Mr. Byker mentioned that the other two out parcels would still be under the prohibition of drive-thru windows and asked if he would be correct in saying they could follow basically the same script that you followed and we would be in a similar position to vote based on this exact same criteria. Mr. Byker said that would depend on if the ordinance changes over time.

Brian Soltz introduced himself, stating that has been a certified land planner for 25 years and for 20 of those years have been involved in developing and designing for McDonald's across North Carolina, South Carolina, and Virginia. He spoke of the City's TRC process which lasted 9 months and the evolution of their original site plan to the current site plan, it was through that process and research that the no drive-thru condition placed on this property was discovered. He gave an overview of the site plan, sharing details about the intentional design for circulation of traffic with customer safety in mind. He shared that the landscaping buffers, water services extension, and stormwater requirements are met within the proposed plan. He testified that the plan as proposed complies with all city codes and plans, the proposed plan is in harmony with the area they do not anticipate a negative value impact on the surrounding area.

Mr. Bradley said because there would be no traffic improvements on North First Street, he is concerned about the potential of vehicle stacking during busy operational hours. Mr. Soltz estimated the calculation of 70-80 cars stacked before North First Street would be affected.

Ms. Burkholder requested clarification about traffic circulation. Mr. Soltz provided clarification.

There was discussion about the older Mebane McDonald's location and the stacking issues on Mebane Oaks Road. Mr. Soltz stated that older locations that have experienced community growth can be challenging but they have learned over the years how to design the parking lots to perform more efficiently.

Caroline Cheeves introduced herself as a Traffic Engineer with DRMP (formerly Ramey Kemp) for over 8 years and has a Bachelor of Science in civil engineering from NC State University and is licensed by the State of NC. She stated that DRMP conducted the traffic study for this project. The study area for the TIA was determined through coordination with the City of Mebane and consists of the following existing intersections:

- N. First Street and Stagecoach Road
- Stagecoach Road and N. Food Lion Driveway
- N. First Street and W. Food Lion Driveway
- N. First Street and W. Graham Street

the following adjacent developments were identified to be included as an approved adjacent development in the study:

- • Stagecoach Corner
- • Potter's Mill
- • N. First Street Townhomes
- • Tupelo Junction
- • Tupelo North

Ms. Cheeves explained how the traffic numbers are developed. Through coordination with the City, it was determined that an annual growth rate of 1% was used to generate 2025 projected weekday AM and PM peak hour traffic volumes. She further explained the process. There was considerable discussion among the Council, Ms. Cheeves, and staff regarding trip calculations. Ms. Cheeves assured the Council that the traffic numbers reflect the full build-out of the developments listed. Staff stated that the city also had a third-party consultant review the TIA and in addition to the third-party consultant, NCDOT staff also reviewed the TIA.

Ms. Cheeves concluded her testimony, stating that it is her professional opinion that the proposed drive-thru window is in harmony with the area and that it meets all the requirements applicable to the special use permit, and the proposed drive-thru window is also not expected to materially endanger the health or safety of the public.

Jarvis Martin introduced himself as a State Certified General Appraiser. He stated that he holds two degrees from North Carolina Central University and has been in the real estate appraisal business in the Triangle area for over 45 years. He said he is also a former member of the Durham City-County Planning Commission, where he served for over 9 years. Mr. Jarvis stated, at the request of the applicant, that he visited the site in question, drove around the surrounding area, and reviewed the proposed site plan. He spoke in detail about his process in determining the impact, if any, that this project would have on the values of properties in the surrounding areas. In his professional opinion,

- The proposed McDonald's with a drive-thru window will be in harmony with the overall neighborhood.
- The proposed restaurant with a drive-thru window will have no adverse impact on property demands or value.
- The proposed restaurant with a drive-thru window will have no adverse impact on the marketability of surrounding properties.

Mr. Byker said in conclusion he would respectfully move into evidence all the exhibits relied upon by the expert witnesses, including the staff report and all the attachments to the staff report. As the applicant, they had the burden to submit competent material and substantial evidence on the record and they have done that and shows that all the required conditions of the Mebane Unified Development Ordinance have been met regarding the special use permit amendment relating to Oak Manor Market shopping center.

Mr. White questioned what evidence was provided regarding public health and safety. Mr. Byker said that would be the testimony of Mr. Soltz and Ms. Cheeves regarding the safety of the design of the drive-thru facility. Mr. White said Ms. Cheeves's testimony was about traffic. Mr. Byker said that is correct, and that the amendment request is primarily a traffic safety issue. Mr. White asked if Mr. Byker felt that the close proximity of a school doesn't raise the burden to comment on that from a public health or safety perspective. Mr. Byker replied that it is not called out in the City's ordinance and the applicant has met all ordinance requirements.

Mr. Bradley stated that the Council in 2002 went through this same process and questioned how Mr. Byker would define that this land conforms with the surrounding areas. Mr. Byker replied that he thinks it conforms with Mebane's overall comprehensive plan which designates this area for additional growth, especially the commercial development around Food Lion. He said in the early 2000s it was common for neighborhood shopping centers to have this prohibition on drive-thru windows but the market has dramatically changed over the last 25 years. Mr. Bradley said he was on the Council in 2002 and he does not recall anyone discussing that it was commonplace to prohibit drive-thru windows, he said it was more likely directed to the conformity issue.

Mr. Brown stated as a reminder that state law is crystal clear that the issue of impact on traffic or property values in the future would require, since it is an opinion, that it must come from a licensed person.

Justin Warren stated that he has children who attend the Montessori school that neighbors the subject property. He spoke in opposition to the project and requested that the Council adhere to the original banning of drive-thru windows.

Mr. Byker objected on the basis of irrelevance.

Andy Austin, co-owner of the Montessori school, spoke in opposition of the request, citing traffic concerns and requested that the Council adhere to the original banning of drive-thru windows.

Mr. Byker objected on the basis of speculation by the witness without expert witness qualifications.

Casey Robertson spoke in opposition to the request, citing the potential negative impact on local businesses and concerns about traffic volume.

Mr. Byker objected, stating that the impact on local businesses is not a finding in the UDO. Four findings are stated in the UDO and we need to make sure that we keep the evaluation of this application strictly to those four findings. He said to the extent that was a testimony offered in regard to danger based on vehicular traffic again that is not competent evidence under North Carolina General statute 160d 1402.

Mr. White made a motion, seconded by Mr. Bradley, to close the public hearing. The motion carried unanimously.

Mr. Bradley commented that Council is being asked to re-evaluate a decision made years ago by a valid Council on the same type of information and the same type of quasi-judicial study. The law requires the Council to evaluate the request on four points: will not in materially endanger the public health or safety, will not substantially injure the property value of abutting or adjoining property, and will be in harmony with the area in which it is located and will be in conformity to Land Development plans and other plans adopted by the City. He said he thinks the Council has received a fair amount of information that justifies those points to an extent, but the Council has already ruled on this matter before. He referred specifically to *item c- will be in harmony with the area in which it is located* and stated that he is reluctant to override the previous decision. Mr. Bradley made a motion, seconded by Mr. White, to deny the special use permit amendment as presented due to the failure to satisfy *item C that it would be in harmony with the area in which it is located*.

Ms. Burkholder stated that she is wrestling with regarding drive-thrus is the accessibility that it gives community members when mobility is an issue.

Mayor Hooks called for a vote on the motion. Ayes- Mr. Bradley, Mr. White, and Mr. Ewing. Nays- Ms. Hadley and Ms. Burkholder. The motion to deny carried with a 3-2 vote.

Mayor Hooks called for a break at 7:54 pm and called the meeting back to order at 8:02 pm.

A Public Hearing was held on a request from Mertiage Homes of the Carolinas, Inc. to adopt an ordinance to extend the corporate limits. Mr. Brown presented the request. He stated that this is a voluntary contiguous annexation of +/- 53.347 acres off E. Washington Street and Mattress Factory Road in Orange County. A residential subdivision is planned for this property. At last month's meeting, the Council accepted the annexation petition and the certificate of sufficiency.

No one from the public spoke concerning the request. Mr. Bradley made a motion, seconded by Mr. Ewing, to close the public hearing. The motion carried unanimously. Mr. Bradley made a motion, seconded by Mr. Ewing to adopt the ordinance to extend the corporate limits to include the +/- 53.347 acres. The motion carried unanimously.

A Public Hearing was held on a request from staff to amend portions of Articles 2 – 12 and Appendices A – F of the Mebane Unified Development Ordinance (UDO). The proposed amendments are the result of a three-phased approach to comprehensively amend the Mebane UDO. Ms. Ownbey presented the request and reviewed the proposed amendments in detail. There was considerable discussion between the Council and staff regarding a few items in Article 4- Accessory Structures, Article 6- Landscaping, Buffering & Screening, Article 6- Outdoor Lighting, and Article 6- Recreation and Open Space.

Mr. White said the UDO had not been touched for a long time and now that it has been refreshed and improved on in multiple stages, should the Council consider the process now concluded and will not be changed for years or is there reason to consider functioning more in a mode where minor edits are made every year. Ms. Ownbey said there are still a handful of topics that she feels need a "deeper dive" so there could be some minor edits. Also updates to the Comprehensive Land Development Plan will begin very soon and typically most communities then revisit policies

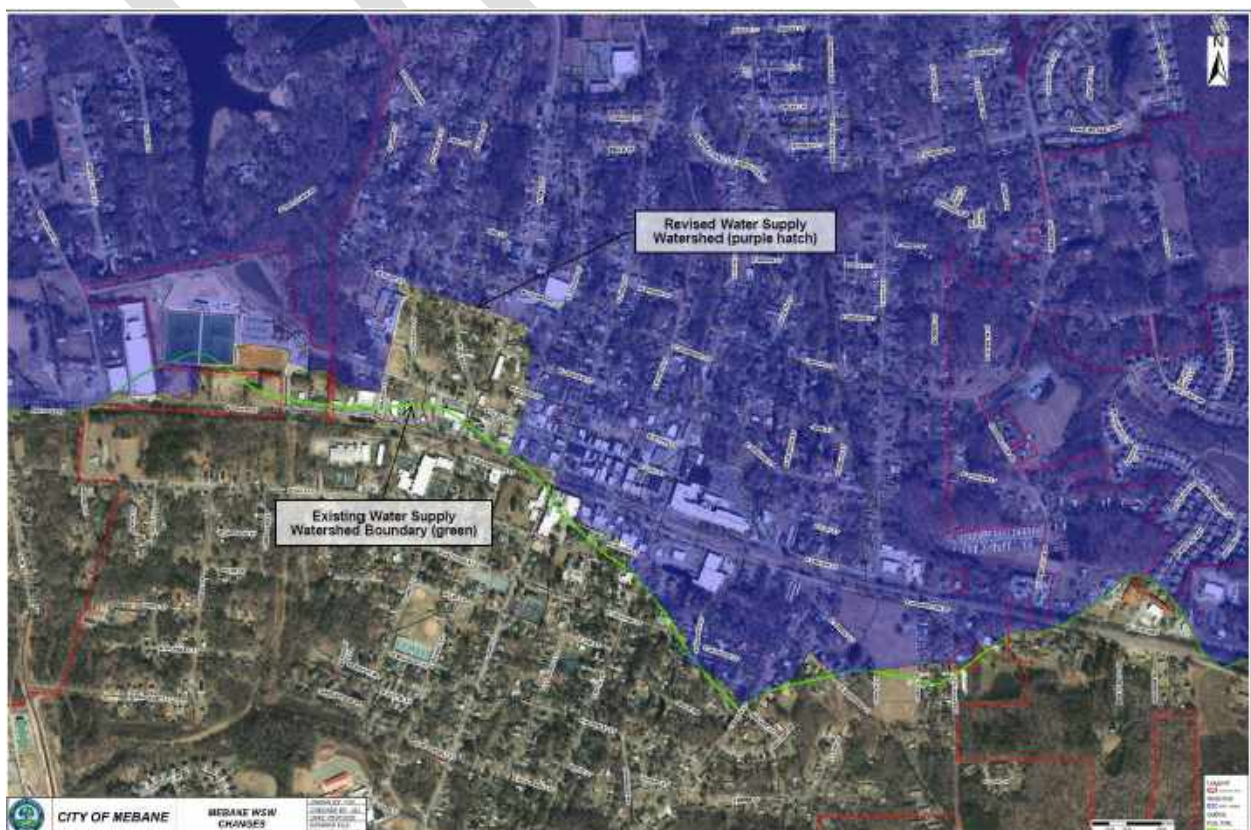
in their UDO, so there could be some additional research at that point as well. Ms. Ownbey praised her staff for all their hard work on the project.

No one from the public spoke. Mr. Ewing made a motion, seconded by Ms. Burkholder, to close the public hearing. The motion carried unanimously. Ms. Burkholder made a motion, seconded by Ms. Hadley, to approve the amendments to the City of Mebane Unified Development Ordinance as presented. The amendments are consistent with the objectives and policies for growth and development in the Comprehensive Land Development Plan *Mebane By Design*. The motion carried unanimously.

Mr. Rollins commended Mr. Mitchell and Mr. Brown for their work on the UDO amendments as well.

A public hearing was held on a request from staff for boundary amendments to the General Watershed Area Overlay District of the Graham-Mebane Lake Public Water Supply Watershed. Ms. Ownbey presented the request. She explained the Council just adopted the text amendment to Article 5 to create a process for reviewing amendments or interpretations of the watershed area boundaries. Based on better and more accurate information, the City of Mebane is proposing amendments to a portion of the General Watershed Area Overlay District. This is considered an intermediate update, and further updates could occur. Approximately 48 acres and 106 properties are affected by the amendments, with 92% of affected properties being partially or fully removed from the overlay district. A watershed is defined as land area contributing surface drainage to a particular water source, such as a lake or river. The land area is largely determined by topography. Watershed protection overlay districts are designed to protect designated public water supply watersheds from activities that could degrade water quality. The City of Mebane's regulations are consistent with the rules adopted by the North Carolina Environmental Management Commission. These regulations will no longer apply to areas removed from the overlay district. Applicable restrictions of the overlay district will become relevant to new areas of properties added. Any existing built-upon area or impervious surface will be exempt from the rules as will most activity related to an existing single-family home.

Charles Brown, 408 W. Clay Street, asked for clarification regarding whether the area that "juts" out as shown on the map would be removed from the watershed area. Mr. Holt replied everything shaded north of that line is water supply watershed.



Mr. Bradley made a motion, seconded by Ms. Burkholder, to close the public hearing. The motion carried unanimously. Mr. Bradley made a motion, seconded by Ms. Hadley, to approve the amendments to the boundary of the General Watershed Area Overlay District of the Graham-Mebane Lake Public Water Supply Watershed WS-II Balance of Watershed Area according to the best available information. The motion carried unanimously.

A Public Hearing was held on a request from staff for the adoption of new System Development Fees FY 2024-25. Mr. Holt presented the request. The System Development Fee is charged to new water and wastewater customers to cover a fair proportion of the financial burden for both existing and new water and wastewater infrastructure. At its April 8th, 2024, meeting, the City Council received the new analysis and presentation by Stantec Engineers and approved posting the report on its website for a 45-day review period seeking public comment. No comments were received to date. The City of Mebane currently charges Water and Sewer System Development Fees as follows:

- The fees are based on the cost per gallon of system capacity and then applied to a 3-bedroom residential water (equivalent residential user) and scaled up or down based on the no. of bedrooms.
- Non-residential fees are scaled based on meter size.

Based on the new analysis, the maximum water and sewer system development fee the city can charge for an equivalent residential user is \$5,494. This is an increase of \$1,664 above the current fee of \$3,830.

No one from the public spoke. Ms. Burkholder made a motion, seconded by Mr. Ewing, to close the public hearing. The motion carried unanimously. Mr. Bradley made a motion, seconded by Ms. Hadley, to adopt the Water and Wastewater System Development Fee charges determined from the Stantec analysis with the FY 24-25 budget. The motion carried unanimously.

A Public Hearing was held on a request for approval of the City's FY 2024-25 Budget Ordinance and 2025-2029 Capital Improvement Plan (CIP). Mr. Rollins gave opening remarks, stating that pending his retirement Mr. Mitchell and Ms. Schwartz took point on preparing this year's budget. He called on Mr. Mitchell to continue with the presentation.

Mr. Mitchell presented a concise overview of the budget via the attached PowerPoint presentation. At the conclusion of the presentation, Mr. Mitchell thanked the citizens, the Council, and all city staff for their input and assistance during the budget process.

No one from the public spoke. Mr. White made a motion, seconded by Mr. Bradley, to close the public hearing. The motion carried unanimously. Mr. White made a motion, seconded by Mr. Bradley, to adopt the Budget Ordinance for the Fiscal Year Ending June 30, 2025, the Fee Schedule, the Position Classification and Pay Plan, and the Capital Improvement Plan for 2025-2029, as presented. The motion carried unanimously.

Ms. Ownbey presented a request for the Council's consideration to adopt a resolution requesting the Alamance County Board of Commissioners make an appointment to the City of Mebane's Board of Adjustment (BOA). The Mebane BOA is served by the members of the City Council as well as two "residents of the area lying outside the corporate limits, appointed by the boards of county commissioners of Alamance and Orange counties, respectively." The terms of these two members from the extraterritorial jurisdiction are three (3) years. The term of the Alamance County representative to the BOA expires June 30, 2024. Genice Akins (5041 Mrs. White Lane) is seeking reappointment. No other applications were submitted to Alamance County. Staff recommends that the applicant Genice Akins, be recommended for reappointment by the Alamance County Board of Commissioners for a term ending June 30, 2027. The Alamance County Board of Commissioners is expected to make the appointment at their meeting on June 17, 2024. Mr. Bradley made a motion, seconded by Mr. Ewing, to adopt a resolution requesting the Alamance County Board of

Commissioners appoint Genice Akins of 5041 Mrs. White Lane to the City of Mebane Board of Adjustment as their representative of the City's extraterritorial jurisdiction. The motion carried unanimously.

Ms. Ownbey presented a request for the Council's consideration to adopt a resolution requesting the Alamance County Board of Commissioners make an appointment to the City of Mebane Planning Board representing the Alamance County extraterritorial jurisdictional area of the City of Mebane. The City of Mebane Planning Board has one opening for representation of the Alamance County Extraterritorial Jurisdiction (ETJ). Any representative of the City's ETJ must be formally appointed by the county in which they reside. The appointment is for a term beginning July 1, 2024 and ending June 30, 2028. Applicants were required to apply through Alamance County. Gale Pettiford (2070 N NC 119) is seeking reappointment. The City received one other eligible application from Tyler Whitley (324 West Lake Trail). The Alamance County Board of Commissioners is expected to make the appointment at their meeting on June 17, 2024. Ms. Burkholder made a motion, seconded by Mr. Bradley, to adopt a resolution requesting the Alamance County Board of Commissioners appoint Gale Pettiford to the City of Mebane Planning Board representing the Alamance County extraterritorial jurisdictional area of the City of Mebane. The motion carried unanimously.

Ms. Ownbey presented a request for the City of Mebane's Bicycle and Pedestrian Advisory Commission (BPAC) Appointment. There is a need to fill one vacant City seat on the BPAC. The member shall serve the existing term, which expires in 2026. Staff has no recommendation regarding the six qualified individuals who applied for the position: Alexander Leaman, Casey Robertson, Conni Fisher, Sue Millager, Jackson Szeto, and Mike Runkle. Mr. Ewing made a motion, seconded by Mr. White, to appoint Casey Robertson to serve on the City of Mebane Bicycle and Pedestrian Advisory Commission and provide guidance to the Mebane City Council on the implementation of the *Bicycle and Pedestrian Transportation Plan* and related matters. The motion carried unanimously.

There being no further business, the meeting was adjourned at 9:15 p.m.

Ed Hooks, Mayor

ATTEST:

Stephanie W. Shaw, City Clerk

**Quasi-Judicial Amendment to Special
Use Permit**

McDonald's
650 N. First Street

EXHIBIT PACKET

June 3, 2024, 6:00PM

Mebane City Hall - Council Chambers
106 E. Washington Street
Mebane, North Carolina 27302

Brian Soltz, AICP

Experience



North Carolina Market Leader

Sambatek

Oct 2022 - Present (1 year 8 months)



Owner - Managing Partner

Commercial Site Design

Oct 2002 - Oct 2022 (20 years 1 month)

Civil Engineering & Land Surveying



Project Manager

McAdams

Dec 1998 - Oct 2002 (3 years 11 months)



Planner

Wake County

1998 - 1998 (less than a year)

City Planner

City of South Miami

1994 - 1998 (4 years)

Education



East Carolina University

1990 - 1994

Bachelor of Science (BS), City/Urban, Community and Regional Planning

Certifications

AICP – American Institute of Certified Planners

Skills

Land Surveying • Site Development • Zoning • Land Development • Mixed-use • Civil Engineering •
Construction Management • Construction • Drainage • AutoCAD



CAROLINE CHEEVES, PE
Traffic Engineering Project Manager



VALUE ADDED TO PROJECT:
+ Strong knowledge of NCDOT requirements
+ Well-rounded project experience

Caroline Cheeves, PE, serves as a Traffic Engineering Project Manager for DRMP’s Traffic Analysis and Modeling Team. Mrs. Cheeves has over 8 years of experience in the field of traffic engineering. Her responsibilities with the firm primarily consist of managing the preparation of various traffic impact studies, signal warrant studies, and parking studies. These studies often include capacity analysis, traffic simulation, roundabout analysis, signal warrant analysis, and traffic forecasting.

RELEVANT PROJECT EXPERIENCE

Eastfield Commons | Johnston County, North Carolina: Project Manager: Managed the Traffic Impact Analysis for the mixed-Use Eastfield Commons development located along U S70-Alt in Selma, NC. This complicated project involved rerouting US70-Alt and several iterations as the site plan evolved over time.

Six Forks Chick-Fil-A, Chick-Fil-A | Wake County, North Carolina: Project Manager: Managed Traffic Impact Analysis for the first drive-thru only Chick-fil-A located at northeast quadrant of Six Forks Road and Wake Forest Road in Raleigh, North Carolina.

Forbes Property | NCDOT & Town of Wake Forest, Franklin County, North Carolina: Project Manager Assisting with the traffic impact analysis for a proposed mixed-use development located on NC 98, east of US 1. This project has required extensive coordination with NCDOT and the Town of Wake Forest regarding the necessary control of access request and extension of Ligon Mill Road through the site.

Project Blue Jay, City of Durham & NCDOT | Durham County, North Carolina: Project Manager: Assisted with a traffic impact analysis for a proposed 1,200,000+ s.f. industrial facility in Research Triangle Park. This project required coordination with the City of Durham and NCDOT and had a fast-paced and dynamic schedule.

Pinnacle Property, Pinnacle Properties Residential | Wake County, North Carolina: Project Manager: Traffic Engineering Services for residential development located to the southwest of Edwards Mill Road and Crabtree Valley Avenue in Raleigh, NC.

City of Newton Streetscape, City of Newton | Newton, North Carolina: Project Manager: Assisted with a signal warrant analysis for the intersections of 2nd Street and College Avenue and 2nd Street and North Main Avenue in Newton, NC.

Walmart, Walmart | Onslow County, North Carolina: Project Manager: Assisted with a traffic impact analysis and a signal warrant analysis for the Norris Road Extension and additional Walmart outparcel development.

Project Titanium, City of Mebane & NCDOT | Alamance County, North Carolina: Project Manager: Assisted with a traffic impact analysis for an expansion of an existing industrial facility in Mebane. This project required coordination with the City of Mebane and NCDOT and had a fast-paced and dynamic schedule.

Years of Experience
8 Total

Education
Bachelor of Science in Civil Engineering,
NC State University, 2016

Software Aptitude
SIDRA
SimTraffic
Synchro

Professional Affiliation
American Council of Engineering Companies
of North Carolina (ACEC/NC)
North Carolina Section, Institute of
Transportation Engineers (Board Member)
NCSITE



QUALIFICATION STATEMENT

I. JARVIS MARTIN

EMPLOYMENT

Owner & Manager - Martin and Company Real Estate Appraisers & Consultants -
June 1976 to June 2015
Principal, SMM, LLC – June 2015- Present
Over 47 Years of Experience

PROFESSIONAL APPRAISAL DESIGNATION AND STATE CERTIFICATION:

Senior Residential Appraiser (SRA), Appraisal Institute (Retired Member)
N.C. State-Certified Residential/General Real Estate Appraiser A-1575
FHA Certified- HUD

EDUCATION:

North Carolina Central University, Durham, NC
Master of Science in Commerce, May, 1976

North Carolina Central University, Durham, NC
Bachelor of Science in Commerce, May, 1972

RECENT COMPLETED PROFESSIONAL SEMINARS

Inconsistency: In Residential Appraisals	05/23
Business Practices and Ethics	03/23
Community Land Trust (CLT) Appraisal Training	12/22
Valuation Overview of Accessory Dwelling Units	09/22
USPAP Update Course	12/21
Residential Property Inspection for Appraisers-	05/21
• The Sales Comparison Approach –	05/21
• Using Spreadsheet Programs in Real Estate Appraisals-	05/20
•	



EXPERT COURT WITNESS:

Federal and State District Courts, Durham, NC

ASSOCIATION MEMBER:

Appraisal Institute (Retired SRA Designated Member)
Durham Association of Realtors - Past Board Member & Treasurer
Durham Business and Professional Chain, Inc., Past President
National Association of Real Estate Brokers (NAREB)
Triangle Chapter of Appraisal Institute – Past President

2013 Realtor of the Year – Durham Regional Association of Realtors

CIVIC AND SOCIAL ACTIVITIES:

Commercial Real Estate Advisor board,
Durham Affordable Bond Housing Committee
Durham City/County Planning Commission – Past Member
Housing for New Hope – Chair- Property Committee
Kappa Alpha Psi Fraternity – Life Member
Mawat District Boy Scouts of America - Past Committee Chairman
North Carolina Central University – School of Business Real Estate Foundation
North Carolina Central University Alumni Association
Saint Joseph's AME Church – Trustee, Chair Property Committee
Sigma Pi Phi Fraternity – Alpha Tau Boule – Member

CURRENT CLIENTS:

1st National Bank of PA
Appraisal Management Solutions, LLC
Providence Bank
Community Bank
Dart Appraisals
Dwellworks Relocation Services
Fidelity Bank
First Republic Bank
Habitat for Humanity
Mercury Network
Piedmont Federal Savings and Loan Bank
South Bank
Talbert & Bright Engineering & Consultation Company
Truist Bank



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May 24, 2024

Atty Patrick Byker

Partner

Morningstar Law Group

700 West Main Street

Durham, NC 27701

Re: Neighborhood Market Study

Special Use Permit/

McDonalds

630 N First St

Mebane, NC 27302

Dear Atty Byker,

Enclosed is the market study for the above-mentioned property, completed for the Public Hearing on June 3, 2024. This study includes a summary of sales data, and analysis on residential homes near 630 N. First St which is the Shopping Center where the McDonald's is located. These studies include maps, photographs, charts, neighborhood inspections comments, and conclusions based on my site inspections, analysis, and general real estate experiences and knowledge.

Thank you and your client for the opportunity to assist you with this matter and being a part of your team.

Sincerely,

I Jarvis Martin.

State Certified General Appraiser

NC# A1575



April 27, 2024

Scope of Work:

Review site plans, visit site 640 N First St, Mebane, NC, (Parcel #168206) and surrounding area. Review home sales adjacent to 640 N First St and additional sales within a 0.5 miles radius analyzing sales price, price per sqft, days on market, and annual appreciation rate to determine if there is any adverse impact on marketability for dwellings located near restaurants with drive thru windows.

There are a total of 4 restaurants provided in this report that were built and/or open within the past 5 years that were used in this report to reflect market reaction within Mebane and surrounding cities (Burlington) to restaurants with & without drive thru windows. These restaurants were provided as they were within blocks from existing neighborhoods and were an accurate representation of the impact a New McDonald's restaurant would have on this market. The properties and communities listed below were used in this market study.

- 620 N First St, Mebane, NC was used to analyze any impact from market data. (1A & 1B)

Subway No Drive Thru Access

- 1311 Mebane Oaks Dr, Mebane, NC was used to analyze any impact from market data. (2A & 2B)

Chick Fila Drive Thru Access

- 1327 Mebane Oaks Dr, Mebane, NC was used to analyze any impact from market data (3A & 3B)

Sukura Grill No Drive Thru Access

- 404 Huffman Mill Rd, Burlington, NC was used to analyze any impact from market data (4A & 4B)

Andy's Drive Thru Access



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Subject View



Street View/Address Verification





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Subway Photo/No Drive Thru Window



Photo of Typical Community Surrounding Shopping Center





Subway Market Data A1

Search Results Summary -54 Listings

	Beds	Baths	SqFt	LP	LP/SqFt	SP	SP/SqFt	SP/LP	DOM
54 Sold Listings									
High	5	4	2926	\$400,000	\$585	\$420,000	\$594	128%	349
Low	2	1	0	\$150,000	\$0	\$157,000	\$0	90%	0
Avg	2.98	2.13	1504	\$280,216	\$205	\$285,670	\$209	102%	21
Med	3	2	1359	\$281,250	\$199	\$290,000	\$199	102%	5
54 Total Listings									
High	5	4	2926	\$400,000	\$585	\$420,000	\$594	128%	349
Low	2	1	0	\$150,000	\$0	\$157,000	\$0	90%	0
Avg	2.98	2.13	1504	\$280,216	\$205	\$285,670	\$209	102%	21
Med	3	2	1359	\$281,250	\$199	\$290,000	\$199	102%	5

Subway Market Data B1

Search Results Summary -102 Listings

	Beds	Baths	SqFt	LP	LP/SqFt	SP	SP/SqFt	SP/LP	DOM
102 Sold Listings									
High	5	4	3122	\$530,000	\$244	\$530,000	\$257	126%	1017
Low	2	0	0	\$99,900	\$0	\$124,500	\$0	96%	0
Avg	3.01	2.04	1475	\$234,006	\$161	\$248,813	\$172	106%	34
Med	3	2	1384	\$225,000	\$159	\$245,000	\$166	106%	3
102 Total Listings									
High	5	4	3122	\$530,000	\$244	\$530,000	\$257	126%	1017
Low	2	0	0	\$99,900	\$0	\$124,500	\$0	96%	0
Avg	3.01	2.04	1475	\$234,006	\$161	\$248,813	\$172	106%	34
Med	3	2	1384	\$225,000	\$159	\$245,000	\$166	106%	3



Chick-Fila Market Study A2 & B2/Drive Thru Window

1311 Mebane Oaks Dr was chosen as it was a new construction with a drive through in 2019. There was a total of 331 sales within a 3/4 of a mile radius from this site.

Recent Statistical Data (Median) A2 & B2

- 12/31/2019 to present-2201 sf, \$326,000, and \$147.97/sf-219 sales, age 6yrs 2 DOM.
- 12/31/2017 to 12/30/2019- 2128 sf, \$242,250, and \$115.05/sf- 112 sale, age 4yrs 2 DOM

The market shows home sale prices have increased since the opening of this Chick Fila restaurant. These dwellings were all located within 3/4 mile from Chick-Fila shopping Center. This property was also chosen to support a restaurant with a drive through.

Chick-Fila Map with surrounding Communities.





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Chick-Fila Photo/Drive-Thru Window



Chick-Fila Surrounding Community Photo





Chick-Fila Market Data A2

Search Results Summary -219 Listings

	Beds	Baths	SqFt	LP	LP/SqFt	SP	SP/SqFt	SP/LP	DOM
219 Sold Listings									
High	6	4	5154	\$649,900	\$373	\$580,000	\$405	120%	162
Low	2	1	803	\$165,000	\$94	\$169,500	\$93	86%	0
Avg	3.65	2.79	2194	\$324,529	\$150	\$326,618	\$152	100%	23
Med	4	3	2201	\$319,000	\$147	\$326,000	\$148	100%	6

219 Total Listings									
High	6	4	5154	\$649,900	\$373	\$580,000	\$405	120%	162
Low	2	1	803	\$165,000	\$94	\$169,500	\$93	86%	0
Avg	3.65	2.79	2194	\$324,529	\$150	\$326,618	\$152	100%	23
Med	4	3	2201	\$319,000	\$147	\$326,000	\$148	100%	6

Chick-Fila Market Data B3

Search Results Summary -112 Listings

	Beds	Baths	SqFt	LP	LP/SqFt	SP	SP/SqFt	SP/LP	DOM
112 Sold Listings									
High	6	4	3264	\$364,900	\$143	\$341,000	\$141	109%	136
Low	2	2	1255	\$175,000	\$78	\$172,000	\$79	92%	0
Avg	3.49	2.99	2184	\$244,503	\$113	\$243,879	\$113	99%	21
Med	3	3	2128	\$239,999	\$115	\$242,250	\$115	100%	7

112 Total Listings									
High	6	4	3264	\$364,900	\$143	\$341,000	\$141	109%	136
Low	2	2	1255	\$175,000	\$78	\$172,000	\$79	92%	0
Avg	3.49	2.99	2184	\$244,503	\$113	\$243,879	\$113	99%	21
Med	3	3	2128	\$239,999	\$115	\$242,250	\$115	100%	7



Sakura Grill/No Drive-Thru Window

1327 mebane Oaks Rd local grill with no drive thru. The business opened June 2020 per tax data.

Recent Statistical Data (Median) A3 & B3

- 06/2022 to present- 1963 sqft, \$357,000, and \$159.44/sqft -26 sales 24yrs old 6 DOM
- 06/2018 to 06/2022- 1845 sqft, \$260,000, and \$111.60 -22 sales 23yrs old 28 DOM

The market data shows home prices have increased since the opening of this restaurant. These dwellings were all located within half a mile from Sakura Grill shopping Center. This property was also chosen to support a restaurant without a drive through.

Sakura Grill Map with surrounding Communities.





Stewart, Martin & McCoy
Appraisal | Brokerage | Consulting

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www.stewart-martin.com

Sukura Grill Photo/ No Drive-Thru Window



Sukura Grill Community Photo





Sakura Grill Market Study A3

Search Results Summary -19 Listings

	Beds	Baths	SqFt	LP	LP/SqFt	SP	SP/SqFt	SP/LP	DOM
19 Sold Listings									
High	4	4	5154	\$649,900	\$214	\$580,000	\$214	113%	88
Low	3	2	1297	\$225,000	\$125	\$251,000	\$113	86%	1
Avg	3.21	2.58	2310	\$372,084	\$164	\$367,647	\$164	100%	19
Med	3	3	2165	\$359,000	\$161	\$355,000	\$159	100%	6
19 Total Listings									
High	4	4	5154	\$649,900	\$214	\$580,000	\$214	113%	88
Low	3	2	1297	\$225,000	\$125	\$251,000	\$113	86%	1
Avg	3.21	2.58	2310	\$372,084	\$164	\$367,647	\$164	100%	19
Med	3	3	2165	\$359,000	\$161	\$355,000	\$159	100%	6

Sakura Grill Market Study B3

Search Results Summary -22 Listings

	Beds	Baths	SqFt	LP	LP/SqFt	SP	SP/SqFt	SP/LP	DOM
22 Sold Listings									
High	5	4	3020	\$345,000	\$146	\$340,000	\$146	104%	1532
Low	3	2	0	\$202,000	\$0	\$202,000	\$0	95%	0
Avg	3.45	2.86	2360	\$264,020	\$115	\$262,654	\$114	99%	138
Med	3	3	2326	\$261,500	\$112	\$260,000	\$112	100%	32
22 Total Listings									
High	5	4	3020	\$345,000	\$146	\$340,000	\$146	104%	1532
Low	3	2	0	\$202,000	\$0	\$202,000	\$0	95%	0
Avg	3.45	2.86	2360	\$264,020	\$115	\$262,654	\$114	99%	138
Med	3	3	2326	\$261,500	\$112	\$260,000	\$112	100%	32



Andy's Market Study A4 & B4/ Drive-Thru Window

408 Huffman Mill Rd was chosen as it was a new construction with a drive through in 2020. There was a total of 128 sales within a half a mile radius from this site.

Recent Statistical Data (Median) A4 & B4

- 12/31/2020 to present-2205 sf, \$313,000, and \$156.93/sf-71 sales, age 56yrs 7 DOM.
- 12/31/2018 to 12/30/2020- 2251 sf, \$238,000, and \$104.93/sf- 57 sale, age 55yrs 10 DOM

The market data shows home sales prices have increased since the opening of the restaurant. These dwellings were all located within 3/4 mile from Andy's store location. This property was also chosen to support a restaurant with a drive through.

Andy's Map with surrounding Communities





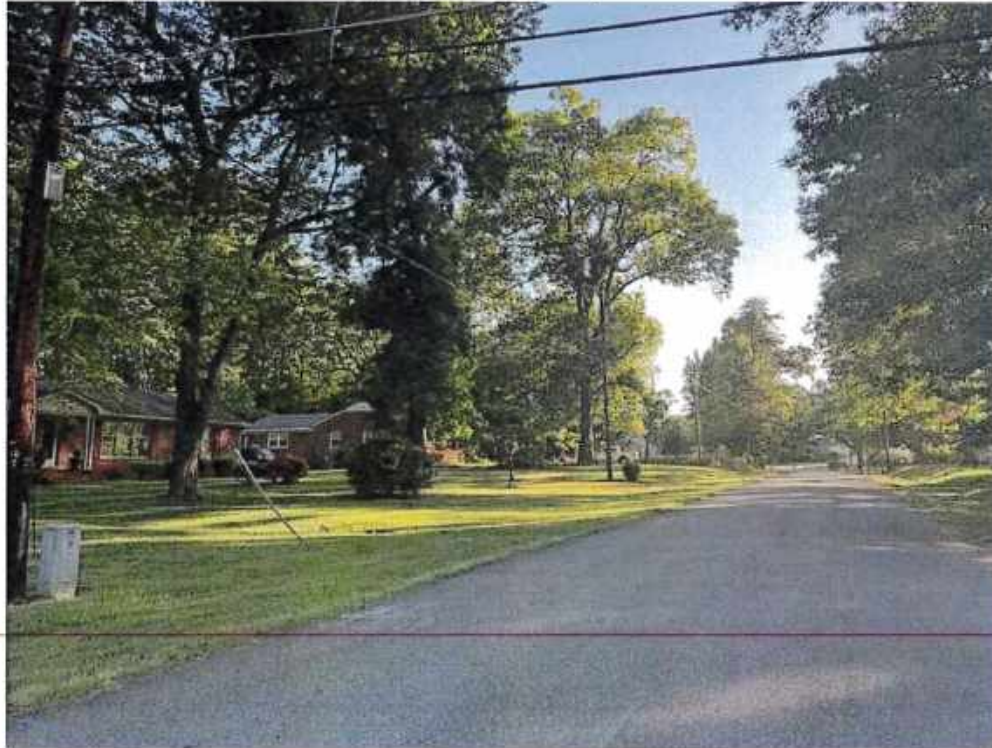
Stewart, Martin & McCoy
Appraisal | Brokerage | Consulting

3604 Shannon Road, Suite 103
Durham, NC 27707
Office (919) 425-5856
www.stewart-martin.com

Andy's Property Photos/ Drive Thru Window



Andy's Community Photo





Andy's Market Study A4

Search Results Summary -71 Listings

	Beds	Baths	SqFt	LP	LP/SqFt	SP	SP/SqFt	SP/LP	DOM
71 Sold Listings									
High	6	5	5220	\$630,000	\$273	\$635,000	\$276	128%	108
Low	3	2	1136	\$175,000	\$91	\$172,500	\$90	89%	0
Avg	3.54	2.77	2251	\$332,249	\$154	\$336,335	\$157	102%	18
Med	3	3	2205	\$310,000	\$149	\$313,000	\$157	100%	8

71 Total Listings									
High	6	5	5220	\$630,000	\$273	\$635,000	\$276	128%	108
Low	3	2	1136	\$175,000	\$91	\$172,500	\$90	89%	0
Avg	3.54	2.77	2251	\$332,249	\$154	\$336,335	\$157	102%	18
Med	3	3	2205	\$310,000	\$149	\$313,000	\$157	100%	8

Andy's Market Study B4

Search Results Summary -57 Listings

	Beds	Baths	SqFt	LP	LP/SqFt	SP	SP/SqFt	SP/LP	DOM
57 Sold Listings									
High	5	5	5122	\$529,900	\$429	\$515,000	\$408	112%	187
Low	2	2	1038	\$118,000	\$62	\$114,400	\$62	85%	0
Avg	3.58	2.91	2387	\$252,545	\$113	\$248,168	\$112	98%	29
Med	3	3	2251	\$239,000	\$107	\$238,000	\$105	99%	10

57 Total Listings									
High	5	5	5122	\$529,900	\$429	\$515,000	\$408	112%	187
Low	2	2	1038	\$118,000	\$62	\$114,400	\$62	85%	0
Avg	3.58	2.91	2387	\$252,545	\$113	\$248,168	\$112	98%	29
Med	3	3	2251	\$239,000	\$107	\$238,000	\$105	99%	10



Market Data Summary

Using data collected from Andy's Restaurant, Chick-Fila, Subway, and Sakura Grill, the data shows no major difference between home sales, days on market, list/sales price ratios of homes near restaurants without drive thru windows & those with drive thru windows. The data supports no adverse impact on the sale prices of homes located in close proximity to restaurants with drive-thru windows. This market study was based on sales price models, price/sqft models, days on market, and annual appreciation rate.

Conclusions & Results based Market Study, Analysis, and General Real Estate experience & knowledge.

- The proposed McDonalds with a drive- thru window, will be in harmony with the overall neighborhood.
- The proposed restaurant with drive-thru windows will have no adverse impact on property the demands or value.
- The proposed restaurant with drive-thru windows will have no adverse impact on the marketability of surrounding properties.

I recommend approval of the Special Use Permit for McDonald's Restaurant.

Walter C Snowden III assisted with sight inspection, research, and analysis of data, and writing of the final report.

This Neighborhood Market Study is subject to the enclosed Certificate Statement.

Submitted by,

I Jarvis Martin.

State Certified General Appraiser

NCH A1575



CERTIFICATION STATEMENT - APPRAISAL CONSULTING REPORT

We certify that, to the best of my knowledge and belief,

The statements of fact contained in this report are true and correct.

The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, unbiased professional analyses, opinions, and conclusions and recommendations.

I have no present or prospective interest in the property that is the subject of this report, and We have no personal interest or bias with respect to the parties involved.

I have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three years period immediately preceding the acceptance of this assignment.

I have no bias with respect to any property that this is the subject of this report or to the parties involved with this assignment.

My engagement in this assignment was not contingent upon developing or reporting predetermined results.

My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal consulting assignment.

My analyses, opinions, and conclusions were developed, and this report has been prepared in conformity with Uniform Standards of Professional Appraisal Practice.

I have made a personal inspection of the property that is the subject of the report.

No one provided a significant real property appraisal or appraisal consultant assistance to the persons signing this certification.

The reported analysis, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.

The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

As of the date of this report, I, Jarvis Martin and Walter C Snowden III have completed the requirement of the continuing education for NC Appraisal Board.

I, Jarvis Martin,

Walter C. Snowden III,

Date: 05/24/2024



Budget Hearing

FISCAL YEAR 2024-2025

JUNE 3, 2024



Economic Factors

- Inflation – The 12-month percentage change from March 2023 to March 2024 is 3.8% for the South Atlantic Region.
- Interest rates have increased over the last two years & two large/important projects are scheduled for FY 24-25 Budget.
- Federal funding/small pool of specialty contractors (Example – Elevated Water Tank)
- Property Tax revenue category showing limited growth
- Sales tax revenue category showing decreased growth



FY24-25 Budget Highlights

General Fund Expenditures	\$32,572,200
Utility Fund Expenditures	\$14,006,649
Occupancy Tax Special Revenue Fund Expenditures	\$158,550
Utility Capital Reserve Fund Transfers Out	<u>\$5,500,000</u>
Total Expenditures	\$52,237,399
General Capital Reserve Fund Revenue	\$915,864
Utility Capital Reserve Fund Revenue	\$3,512,000

*if SDF revisions are approved

Property Tax Rate \$0.37 per \$100 valuation

*\$.02 of the \$0.37 is transferred to the General Capital Reserve Fund



FY24-25 Budget Highlights

Water Rates

- *Inside City:* \$8.32 per 1,000 gallons
- *Outside City:* \$16.64 per \$1,000 gallons

Sewer Rates

- *Inside City:* \$8.93 per 1,000 gallons
- *Outside City:* \$17.86 per 1,000 gallons

**Water and Sewer Rates reflect a 10% rate increase from FY 23-24*

Garbage/Recycling \$8 per month per address

- *The rate is unchanged from FY 23-24*



FY24-25 Budget Highlights

Cost of Living Increase 4%

- *FY23-24 COLA was 6%*

Health Insurance Increase: 3.58% for medical and 7.03% for dental

**The increase from FY22-23 to FY23-24 was .016% for medical.*

Retirement Rate Increase General 24.10%; Law Enforcement 25.54%

**This is a 0.75% and 1.0% increase over FY 23-24*

Retirement rates are set by the N.C. State Treasurer



General Fund
Recommended
Budget

FY24-25



General Fund Expenditures

General Fund Expenditures by Type					
Type	FY 2022-2023 Actual	FY 2023-2024 Amended Budget	FY 2024-2025 Recommended Budget	Percent Change	FY24-25 Variance
Personnel	\$12,666,865	\$16,025,572	\$16,694,987	4.2%	\$669,415
Operating	\$8,428,106	\$11,015,823	\$10,947,374	(0.6%)	(\$68,449)
Capital	\$2,607,308	\$7,063,669	\$1,489,471	(374.2%)	(\$5,574,198)
Transfers out	\$1,786,840	\$2,218,126	\$910,864	(143.5%)	(\$1,307,262)
Debt Service	\$1,779,396	\$2,035,812	\$2,529,504	24.3%	\$493,692
Total	\$27,268,515	\$38,359,002	\$32,572,200	(17.8%)	(\$5,786,802)



General Fund Expenditures

General Fund Department Budgets					
Department	FY 2022-2023 Actual	FY 2023-2024 Amended Budget	FY 2024-2025 Recommended Budget	Percent Change	FY24-25 Variance
Council*	\$86,818	\$71,870	\$74,781	4.1%	\$2,911
Administration	\$1,121,603	\$1,430,254	\$990,167	(44.4%)	(\$440,087)
Human Resources**	\$0	\$0	\$445,644	100.0%	\$445,644
Finance	\$695,697	\$748,626	\$678,093	(10.4%)	(\$70,533)
IT***	\$913,853	\$1,713,081	\$1,715,953	0.2%	\$2,872
Economic Development	\$1,269,188	\$1,080,214	\$900,214	(20.0%)	(\$180,000)
Police	\$5,256,200	\$6,932,195	\$6,680,564	(3.8%)	(\$251,631)
Fire	\$4,216,855	\$7,230,682	\$4,995,471	(44.7%)	(\$2,235,211)
Planning	\$399,695	\$606,259	\$448,505	(35.2%)	(\$157,754)
Main Street Program*	\$142,098	\$0	\$0	0.0%	\$0
Inspections	\$789,871	\$1,002,275	\$985,962	(1.7%)	(\$16,313)
Engineering	\$445,500	\$445,500	\$455,000	2.1%	\$9,500
Public Works****	\$2,913,342	\$3,818,955	\$3,415,555	(11.8%)	(\$403,400)
Public Facilities	\$837,028	\$1,416,138	\$958,574	(47.7%)	(\$457,564)
Sanitation	\$1,754,074	\$2,575,978	\$2,001,909	(28.7%)	(\$574,069)
Recreation and Parks	\$2,269,584	\$3,863,498	\$2,973,274	(29.9%)	(\$890,224)
Non-Departmental	\$2,370,269	\$5,423,477	\$4,852,534	(11.8%)	(\$570,943)
Total	\$25,481,675	\$38,359,002	\$32,572,200	(17.8%)	(\$5,786,802)

*Some or all expenditures were moved to Non-Departmental in FY 23-24.

** The Human Resources Department was previously part of the Administration Department.

*** All citywide software license expenditures were moved to the IT department for FY 24-25.

**** Four full-time equivalents were moved from the Public Facilities Department to the Public Works Department.



General Fund Revenues and Other Financing Sources

General Fund Revenues and Other Funding Sources					
	FY 2022-2023 Actual	FY 2023-2024, Amended Budget	FY 2024-2025 Recommended Budget	Percent Change	FY24-25 Variance
Revenues					
Property taxes	\$13,691,894	\$15,579,883	\$16,809,858	7.9%	1,229,975
Sales taxes	\$6,295,278	\$7,107,700	\$6,957,734	(2.2%)	(149,966)
Privilege licenses	\$945	\$900	\$900	0.0%	0
Unrestricted intergovernmental	\$1,939,261	\$1,817,300	\$1,959,150	7.8%	141,850
Restricted intergovernmental	\$1,508,594	\$1,627,101	\$1,587,618	(2.5%)	(39,483)
Permits & fees	\$1,878,503	\$1,919,910	\$1,523,704	(26.0%)	(396,206)
Sales & Services	\$752,683	\$816,338	\$840,136	2.9%	23,798
Investment earnings	\$222,281	\$20,000	\$172,000	760.0%	152,000
Miscellaneous	\$264,941	\$227,700	\$61,016	(273.2%)	(166,684)
Total revenues	\$26,554,380	\$29,116,832	\$29,912,116	2.7%	795,284
Other financing sources					
Transfers in	\$0	\$0	\$0	N/A	0
Debt proceeds	\$916,006	\$2,772,662	\$360,084	(670.0%)	(2,412,578)
IT subscriptions agreement	\$48,129	\$0	\$0	N/A	0
Appropriated Fund Balance	\$0	\$6,469,508	\$2,300,000	(181.3%)	(4,169,508)
Total other financing sources	964,135	\$9,242,170	\$2,660,084	(247.4%)	(6,582,086)
Total revenues & other financing sources	\$27,518,515	\$38,359,002	\$32,572,200	(17.8%)	(5,786,802)



General Capital
Reserve Fund
Recommended
Budget

FY24-25



General Capital Reserve Fund

General Capital Reserve Fund Revenues and Other Financing Sources					
	FY 2022-2023 Actual*	FY 2023-2024 Amended Budget	FY 2024-2025 Recommended Budget	Percent Change	FY24-25 Variance
Transfer from General Fund	\$0	\$840,317	\$910,864	8.4%	\$70,547
Interest Earnings	\$0	\$0	\$5,000	100.0%	\$5,000
Total revenues	\$0	\$840,317	\$915,864	9.0%	\$75,547
Other financing sources (uses)					
Transfers out	\$0	\$0	\$0		\$0
Total revenues & other financing sources (uses)	\$0	\$840,317	\$915,864	9.0%	\$75,547

* This fund was established in FY 23-24.

The estimated General Capital Reserve Fund balance on June 30, 2024 (FY23-24), is \$842,751.



Special Revenue
Fund – Occupancy
Tax
Recommended
Budget
FY24-25



Special Revenue Fund Occupancy Tax

Occupancy Tax Special Revenue Fund						
	FY 2022- 2023 Actual*	FY 2023-2024 Amended Budget *	FY 2024-2025 Recommended Budget	Percent Change	FY24-25 Variance	
Occupancy Tax Revenues	\$0	\$0	\$158,550	100.0%	\$158,550	
Interest Earnings	\$0	\$0	\$0	0.0%	\$0	
Total revenues	\$0	\$0	\$158,550	100.0%	\$158,550	
Expenditures						
Collection fees	\$0	\$0	\$7,550	100%	\$7,550	
Travel and tourism promotion	\$0	\$0	\$100,667	100%	\$100,667	
Tourism-related expenditures	\$0	\$0	\$50,333	100%	\$50,333	
Total expenditures	\$0	\$0	\$158,550	100.0%	\$158,550	

* FY 24-25 is the first year for this fund.



Utility Fund
Recommended
Budget

FY24-25



Utility Fund Expenditures

Utility Fund Expenditures by Type					
Type	FY 2022-2023 Actual	FY 2023-2024 Amended Budget	FY 2024-2025 Recommended Budget	Percent Change	FY24-25 Variance
Personnel	\$2,887,952	\$3,699,890	\$3,856,549	4.2%	\$156,659
Operating	\$3,789,483	\$5,533,919	\$5,602,940	1.2%	\$69,021
Capital	\$1,609,844	\$1,742,711	\$1,222,733	(42.5%)	(\$519,978)
Debt Service	\$1,490,977	\$1,491,369	\$3,324,427	122.9%	\$1,833,058
Total	\$9,778,256	\$12,467,889	\$14,006,649	12.3%	\$1,538,760



Utility Fund Expenditures

Utility Fund Department Budgets					
Department	FY 2022-2023 Actual	FY 2023-2024 Amended Budget	FY 2024-2025 Recommended Budget	Percent Change	FY24-25 Variance
Admin, Billing & Meters	\$1,154,877	\$1,627,360	\$2,023,616	24.3%	\$396,256
Operations & Maintenance	\$4,912,775	\$6,246,616	\$5,795,618	(7.8%)	(\$450,998)
Engineering	\$295,063	\$288,971	\$293,000	1.4%	\$4,029
Water Resource Recovery	\$1,895,595	\$2,666,173	\$2,537,388	(5.1%)	(\$128,785)
Non-Departmental	\$1,519,966	\$1,638,769	\$3,357,027	104.9%	\$1,718,258
Total	\$9,778,276	\$12,467,889	\$14,006,649	12.3%	\$1,538,760

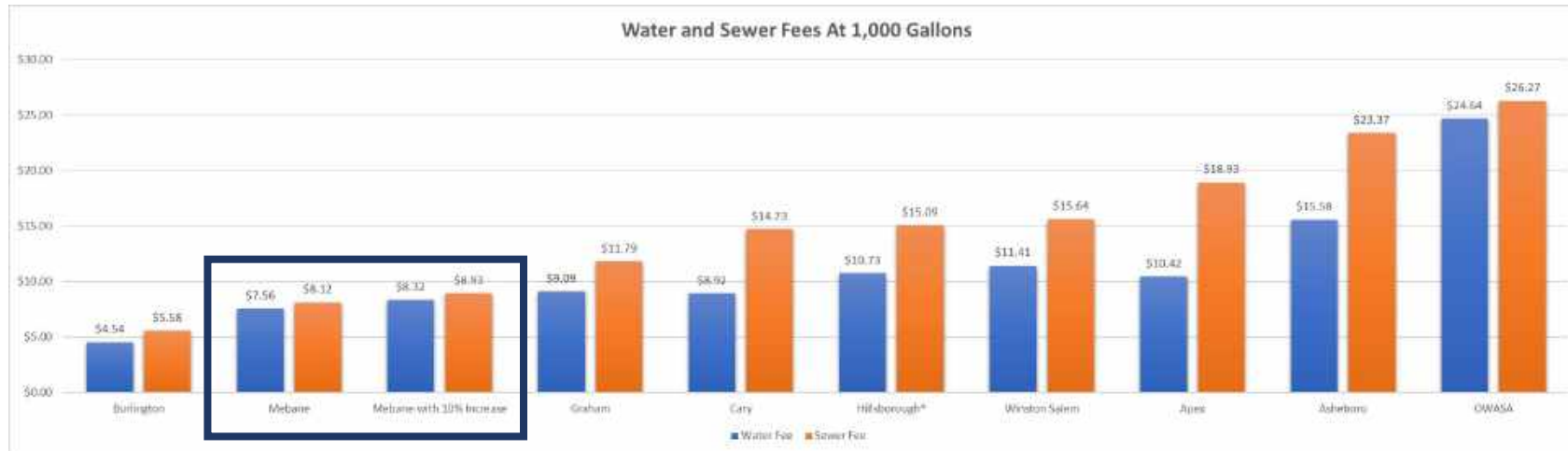


Utility Fund Revenues and Other Financing Sources

Utility Fund Revenues and Other Funding Sources					
	FY 2022-2023 Actual	FY 2023-2024 Amended Budget	FY 2024-2025 Recommended Budget	Percent Change	FY24-25 Variance
Revenues					
Sales and Services	\$8,131,646	\$8,844,194	\$10,300,957	16.5%	\$1,456,763
Intergovernmental	(\$99,006)	(\$106,000)	(\$102,000)	(3.8%)	\$4,000
Permits and Fees	\$329,207	\$449,400	\$438,040	(2.6%)	(\$11,360)
Investment Earnings	\$96,147	\$20,000	\$100,000	400.0%	\$80,000
Miscellaneous	\$277,465	\$734,500	\$185,500	(296.0%)	(\$549,000)
Total revenues	\$8,735,459	\$9,942,094	\$10,922,497	9.9%	\$980,403
Other financing sources					\$0
Debt proceeds	\$0	\$0	\$758,750	100.0%	\$758,750
Appropriated fund balance	\$0	\$2,525,795	\$2,325,402	(8.6%)	(\$200,393)
Total other financing sources	\$0	\$2,525,795	\$3,084,152	22.1%	\$558,357
Total revenues & other financing sources (uses)	\$8,735,459	\$12,467,889	\$14,006,649	12.3%	\$1,538,760



RATE COMPARISONS





Water & Sewer Rates 10% Increase

Water and Sewer Rates					
Fiscal Year	Inside Water	Outside Water	Inside Sewer	Outside Sewer	Increase
FY23-24	\$7.56	\$15.12	\$8.12	\$16.24	6%
FY24-25	\$8.32	\$16.64	\$8.93	\$17.86	10%

* Rates are per 1,000 gallons.



Utility Capital
Reserve Fund
Recommended
Budget

FY24-25



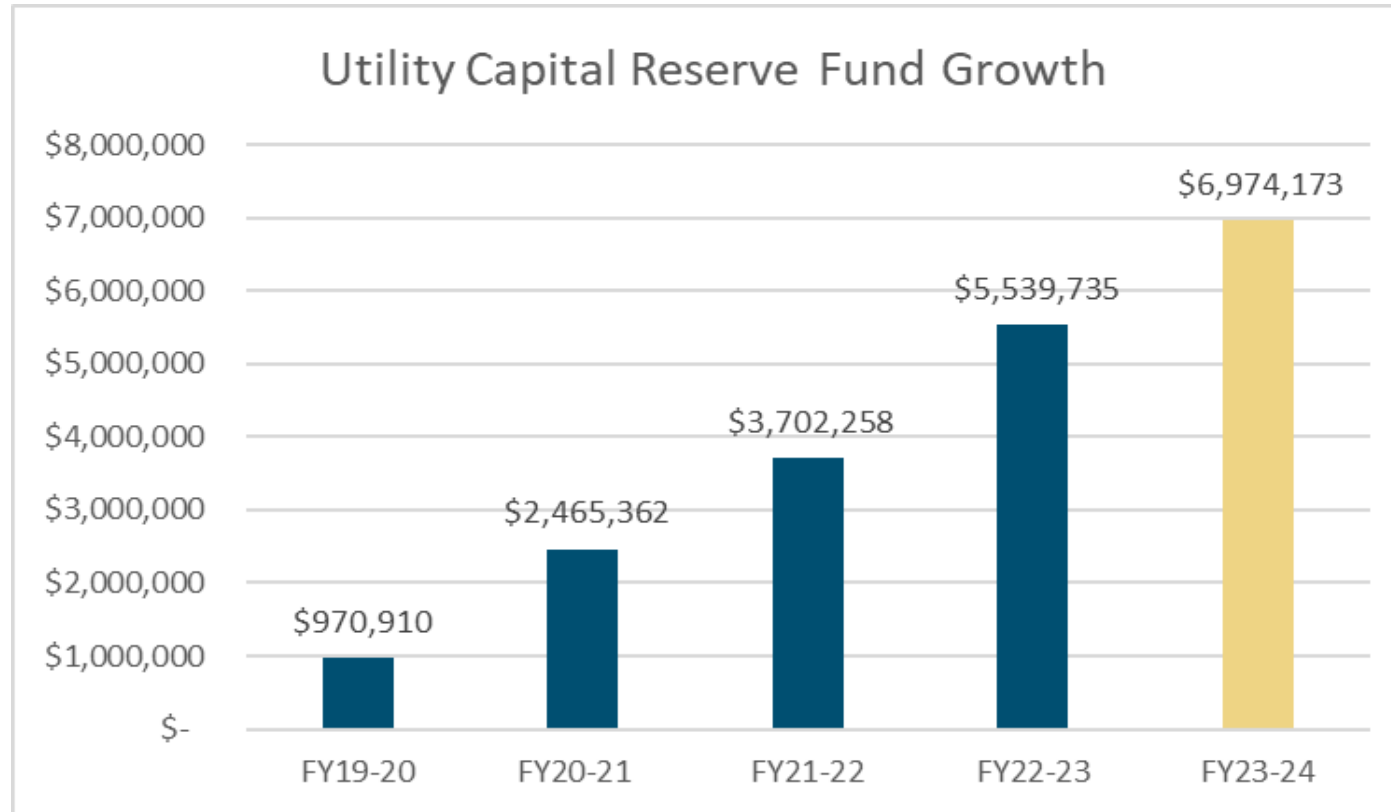
Utility Capital Reserve Fund

Utility Capital Reserve Fund Revenues and Other Financing Sources					
	FY 2022- 2023 Actual	FY 2023- 2024 Amended Budget	FY 2024-2025 Recommended Budget with SDF revisions	Percent Change with SDF revisions	FY24-25 Variance with SDF revisions
System Development Fees	\$1,434,780	\$1,598,000	\$3,472,000	117.3%	\$1,874,000
Interest Earnings	\$1,293	\$3,000	\$40,000	1233.3%	\$37,000
Appropriated Fund Balance	\$0	\$0	\$5,500,000	100.0%	\$5,500,000
Total revenues and other financing sources	\$1,436,073	\$1,601,000	\$9,012,000	462.9%	\$1,911,000
Other financing uses					
Transfers out (System Development Fees)	(\$199,177)	\$0	(\$5,500,000)	100.0%	(\$5,500,000)
Total other financing uses	(\$199,177)	\$0	(\$5,500,000)	0%	\$0
Total revenues & other financing sources (uses)	\$1,236,896	\$1,601,000	\$3,512,000	119.4%	\$1,911,000

The budget includes a fund balance appropriation of \$5.5 million for transfer to the WRRF Expansion Project to lower the debt financing required.



Utility Capital Reserve Fund Growth



FY23-24 as of 5/31/24.



Questions?



BE IT ORDAINED BY the City Council of Mebane, North Carolina:

Section 1. The following amounts are hereby appropriated in the General Fund for the operation of the city government and its activities for the fiscal year beginning July 1, 2024, and ending June 30, 2025, in accordance with the chart of accounts heretofore established for the City:

City Council	\$ 74,781
Administration	990,167
Human Resources	445,644
Finance	678,093
Information Technology	1,715,953
Police	6,680,564
Fire	4,995,471
Economic Development	900,214
Planning	448,505
Inspections	985,962
Engineering	455,000
Public Works	3,415,555
Public Facilities	958,574
Sanitation	2,001,909
Recreation & Parks	2,973,274
Non-Departmental	4,852,534
Total General Fund Appropriations	\$ 32,572,200

Section 2. It is estimated that the following revenues will be available in the General Fund for the fiscal year beginning July 1, 2024, and ending June 30, 2025:

Current Year Property Tax	\$ 16,769,858
Sales Tax	6,957,734
Utility Franchise Tax	1,300,000
Other Property Tax	40,000
Fire District Tax	590,318
Powell Bill Allocation	585,000
Sanitation User Fees	596,636
Permits and Fees	1,523,704
Proceeds of Debt	360,084
All Other Revenues	1,548,866
Appropriated Fund Balance	2,300,000
Total General Fund Revenues	\$ 32,572,200

Section 3. There is hereby levied a tax at the rate of thirty-seven cents (\$0.37) per one hundred dollars (\$100) valuation of property as listed for taxes as of January 1, 2025, for the purpose of raising the revenue listed "Current Year's Property Taxes" and in the General Fund in Section 2 of this ordinance.

This rate is based on a valuation of property for the purposes of taxation of \$4,323,296,118 for non-registered motor vehicle property tax with an estimated rate of collection of 99.55%, and \$231,024,738 for registered motor vehicle property tax with an estimated collection rate of 98.93%. The estimated rate of collection is based on the fiscal year 2022-23 collection rates.

Section 4. The following amounts are hereby appropriated in the General Capital Reserve Fund to preserve two cents (\$0.02) of the property tax collected in the General Fund for capital purposes for the fiscal year beginning July 1, 2024 and ending June 30, 2025:

Reserved for Capital Projects	915,864
Total General Capital Reserve Appropriations	<u>\$ 915,864</u>

Section 5. It is estimated that the following revenues will be available in the General Capital Reserve Fund for the fiscal year beginning July 1, 2024 and ending June 30, 2025:

Two-cents of property tax	\$ 910,864
Other Revenues	5,000
Total Utility Capital Reserve Fund Revenues	<u>\$ 915,864</u>

Section 6. The following amounts are hereby appropriated in the Occupancy Tax Special Revenue Fund for travel and tourism purposes for the fiscal year beginning July 1, 2024 and ending June 30, 2025:

Travel and Tourism promotion	\$ 100,667
Tourism-related	50,333
Other	7,550
Total Occupancy Tax Special Revenue Fund Appropriations	<u>\$ 158,550</u>

Section 7. It is estimated that the following revenues will be available in the Occupancy Tax Special Revenue Fund for the fiscal year beginning July 1, 2024 and ending June 30, 2025:

Occupancy Tax Revenues	158,550
Total Occupancy Tax Special Revenue Fund Revenues	<u>\$ 158,550</u>

Section 8. There is hereby levied a tax at the rate of three percent (3.0%) of the gross receipts derived from the rental of an accommodation within the City of Mebane.

Section 9. The following amounts are hereby appropriated in the Utility Fund for the operation of the water and sewer utilities for the fiscal year beginning July 1, 2024, and ending June 30, 2025, in accordance with the chart of accounts heretofore approved for the City:

Administration and Metering	\$ 2,023,616
Utilities	5,795,618
Engineering	293,000
Waste Water Treatment Plant	2,537,388
Non-Departmental	3,357,027
Total Utility Fund Appropriations	<u>\$ 14,006,649</u>

Section 10. It is estimated that the following revenues will be available in the Utility Fund for the fiscal year beginning July 1, 2024, and ending June 30, 2025:

Water Utility Fees	\$	5,083,352
Sewer Utility Fees		5,217,605
All Other Revenues		621,540
Proceeds of Debt		758,750
Appropriated Fund Balance		2,325,402
Total Utility Fund Revenues	\$	<u>14,006,649</u>

Section 11. The following amounts are hereby appropriated in the Utility Capital Reserve Fund to preserve system development fees for appropriation to capital and infrastructure purposes for the fiscal year beginning July 1, 2024 and ending June 30, 2025:

Reserved for Capital Projects		3,512,000
Transfer to Capital Projects		5,500,000
Total Utility Capital Reserve Appropriations	\$	<u>9,012,000</u>

Section 12. It is estimated that the following revenues will be available in the Utility Capital Reserve Fund for the fiscal year beginning July 1, 2024 and ending June 30, 2025:

System Development Fees	\$	3,472,000
Other Revenues		40,000
Appropriated Fund Balance		5,500,000
Total Utility Capital Reserve Fund Revenues	\$	<u>9,012,000</u>

Section 13. The Budget Officer is hereby authorized to transfer appropriations as contained herein under the following conditions:

- a. Except as noted for the General and Utility Capital Reserve Funds below, they may transfer amounts between line item expenditures and departments within a fund without limitation and without a report being required.
- b. They may not transfer any amounts between funds, except as approved by the Governing Board through a Budget Ordinance amendment.
- c. City Council approval by budget ordinance amendment is required to amend appropriations in the General and Utility Capital Reserve Funds.

Section 14. The City of Mebane Fee Schedule, herein referenced, for the fiscal year beginning July 1, 2024, and ending June 30, 2025, is hereby adopted for this fiscal year.

Section 15. The accompanying Position and Classification Plan, herein referenced, for the fiscal year beginning July 1, 2024, and ending June 30, 2025, is hereby adopted for this fiscal year and shall be administered in accordance with the City of Mebane Personnel Policy Principles as adopted August 4, 2014.

Section 16. Operating funds encumbered by the City as of June 30, 2024, or otherwise designated, are hereby re-appropriated for this fiscal year.

Section 17. Copies of this Budget Ordinance shall be furnished to the Clerk, the City Council, the Budget Officer, and Finance Officer for their use in directing the disbursement of funds.

Adopted this 3rd day of June 2024.



OFFICE OF THE MAYOR

Designation of July as Park and Recreation Month

WHEREAS, Parks and Recreation is an integral part of communities throughout this country, including the City of Mebane; and

WHEREAS, Parks and Recreation promotes health and wellness, improving the physical and mental health of people who live near parks; and

WHEREAS, Parks and Recreation promotes time spent in nature, which positively impacts mental health by increasing cognitive performance and well-being, and alleviating illnesses such as depression, attention deficit disorders, and Alzheimers; and

WHEREAS, Parks and Recreation encourages physical activities by providing space for popular sports, hiking trails, swimming pools and many other activities designed to promote active lifestyles; and

WHEREAS, Parks and Recreation is a leading provider of healthy meals, nutrition services and education; and

WHEREAS, Parks and Recreation programming and educational activities, such as out-of-school time programming, youth sports and environmental education, are critical to childhood development; and

WHEREAS, Parks and Recreation increases a community's economic prosperity through increased property values, expansion of the local tax base, increased tourism, the attraction and retention of businesses, and crime reduction; and

WHEREAS, Parks and Recreation is fundamental to the environmental well-being of our community; and

WHEREAS, Parks and Recreation is essential and adaptable infrastructure that makes our communities resilient in the face of natural disasters and climate change; and

WHEREAS, our parks and natural recreation areas ensure the ecological beauty of our community and provide a place for children and adults to connect with nature and recreate outdoors; and

WHEREAS, the U.S. House of Representatives has designated July as Parks and Recreation Month; and

WHEREAS, the City of Mebane recognizes the benefits derived from Parks and Recreation resources.

NOW THEREFORE, BE IT RESOLVED BY the Mebane City Council that July is recognized as Parks and Recreation Month in the City of Mebane.

Signed, sealed and delivered this 1st day of July, 2024.

Ed Hooks, Mayor



AGENDA ITEM #5C

SUB 24-08

Final Subdivision Plat
Cambridge Park, Phase 3B

Presenter

Ashley Ownbey, Development Director

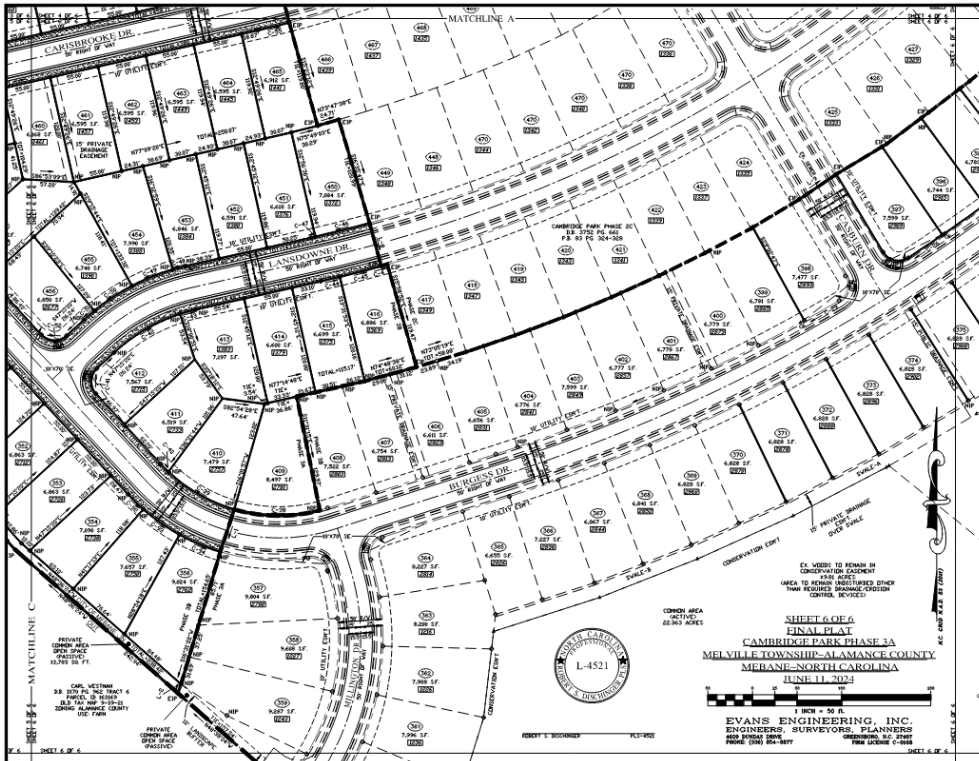
Applicant

GHD-Cambridge Park Mebane, LLC
1330 Sunday Drive, Suite 105
Raleigh, NC 27607

Public Hearing

Yes No

Final Plat



Property

Cambridge Park,
Alamance County

GPIN
9813248275

Proposed Zoning

N/A

Current Zoning

R-12 PUD

Size

+/-16.018 acres

Surrounding Zoning

Alamance County

Surrounding Land Uses

Residential,
Agricultural,
Vacant

Utilities

Extended at
developer's
expense.

Floodplain

No

Watershed

No

City Limits

Yes

Summary

GHD-Cambridge Park Mebane, LLC, is requesting approval of the Final Plat for Phase 3B of the Cambridge Park Subdivision (approved for rezoning and a special use permit for a planned unit development by City Council 01/08/18). The final plat will include a total area of +/- 16.018 acres featuring 75 single-family lots, +/- 0.667 acres of open space, and +/-3.254 acres and +/- 2,855 linear feet of dedicated right of way.

The Technical Review Committee (TRC) has reviewed the final plat and the applicant has revised the plat to reflect comments. All infrastructure must be completed and approved to meet the City of Mebane specifications. All infrastructure not completed shall be bonded or a letter of credit provided prior to recordation.

Financial Impact

The developer has extended utilities at his own expense.

Recommendation

Staff recommends approval of the final plat.

Suggested Motion

Motion to approve the final plat as presented.

Attachments

1. Final Plat

B. Certificate of Ownership and Dedication (For Use with Major Subdivision Plats Only)

This certifies that the undersigned is (are) the owner(s) of the property shown on this map, having acquired title to it by deed(s) recorded in the Alamance County, North Carolina Register of Deeds otherwise as shown below and that by submission of this plat or map for approval, I/we do dedicate to the City of Mebane for public use all streets, easements, rights-of-way and parks shown thereon for all lawful purposes to which the city may devote or allow the same to be used and upon acceptance thereof and in accordance with all city policies, ordinances and regulations or conditions of the City of Mebane for the benefit of the public, this dedication shall be irrevocable. Also, all private streets shown on this map, if any, are to be available for public use.

Provided, however, the "Common Elements" shown hereon expressly are not dedicated hereby for use by the general public, but are to be conveyed by GHD-CAMBRIDGE PARK MEBANE, LLC to Cambridge Park Homeowners Association, Inc. for the use and enjoyment of the members thereof pursuant to the terms of that certain Declaration of Covenants, Conditions and Restrictions for Cambridge Park recorded in Book 3927, Page(s) 0656-0718, ALAMANCE County Registry, the terms and provisions of which are incorporated herein by this reference.

GHD-CAMBRIDGE PARK MEBANE, LLC by the recordation of this Plat, hereby gives, grants and conveys to a Utility and the City of Mebane, their respective successors and assigns, rights-of-way and easements to maintain and service their respective wires, lines, conduits, and pipes in their present locations within the "Common Elements" as shown hereon together with the right of ingress and egress over and upon said "Common Elements" for the purpose of maintaining and servicing wires, lines, conduits, and pipes.

Owner _____ Date _____

I, _____ A NOTARY PUBLIC OF SAID COUNTY AND STATE, DO HEREBY CERTIFY THAT

PERSONALLY APPEARED BEFORE ME THIS DAY AND UNDER OATH ACKNOWLEDGED THAT THE ABOVE FORM WAS EXECUTED BY HIM/HER WITNESS MY HAND AND SEAL THIS _____ DAY OF _____ 20____

NOTARY PUBLIC (SIGNATURE) _____

MY COMMISSION EXPIRES _____

REVIEW OFFICER CERTIFICATION
I, _____ Review Officer of Alamance County, certify that this map or plat to which the certification is affixed meets all statutory requirements for recording.

Review Officer _____ Date _____

I, _____ the City Clerk of Mebane, North Carolina, do certify that the City of Mebane approved this plat or map and accepted the dedication of the streets, easements, rights-of-way and public parks shown thereon, but assumes no responsibility to open or maintain the same, until in the opinion of the City Council of the City of Mebane it is in the public interest to do so.

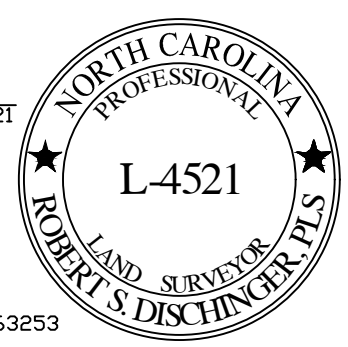
City Clerk _____ Date _____

Certificate of Survey Accuracy:

I, Robert S. Dischinger, certify that this plat was drawn under my supervision from an actual survey made under my supervision (deed description recorded in Book 4478 Page 694); that the boundaries not surveyed are clearly indicated as drawn from information found in Book SEE Page MAP; that the ratio of precision as calculated is 1:21,995; that this plat was prepared in accordance with G.S. 47-30 as amended. Witness my original signature, registration number and seal this 11 day of JUNE, AD, 2024.

(11)a. this survey creates a subdivision of land within the area of a county or municipality that has an ordinance that regulates parcels of land.

ROBERT S. DISCHINGER PLS-4521



SITE DATA:
PARCELS: PIN: 163091, 163107, 163248, 163252, 163253
ADDRESS: 1909 JONES DRIVE
TOTAL ACREAGE = 238± ACRES
ZONING: PUD-R-12 WITH ANNEXATION
EXISTING USE: VACANT AND RESIDENTIAL
PROPOSED USE: RESIDENTIAL
ADJACENT ZONING: ALAMANCE COUNTY
DEED REFERENCES:
#163252 - DB 4478, PG 694-699

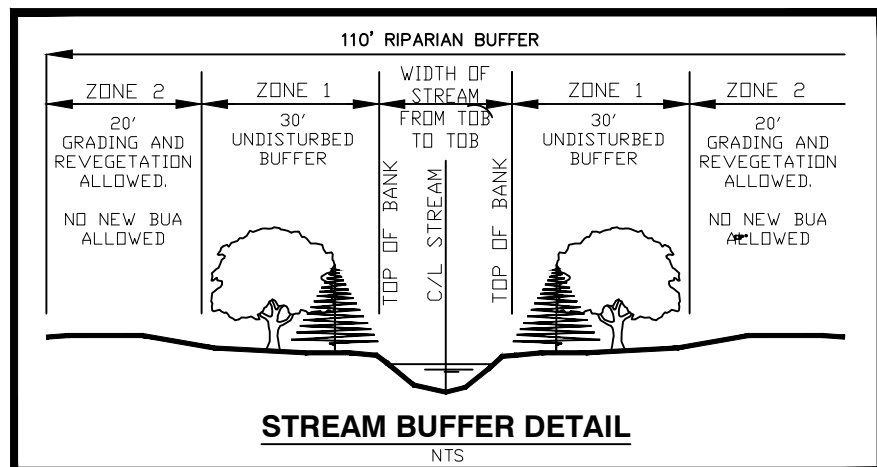
FLOOD INFORMATION:
FLOOD PLAIN PER FIRM MAP #3710981300K PANEL #9813, DATED 11-17-2017

WATERSHED INFORMATION:
WATERSHED: NDNE (NPDES PHASE II RULES APPLY)
RIVER BASIN: CAPE FEAR (HAW CREEK, CLASS WS-VJNSW)
COORDINATES: LAT: 36.050746
LONG: -79.29087
SOILS: CnB2, CnC2, CnD2, IsB2, RvA, WtB, WtC
SEWER: PUBLIC
WATER: PUBLIC

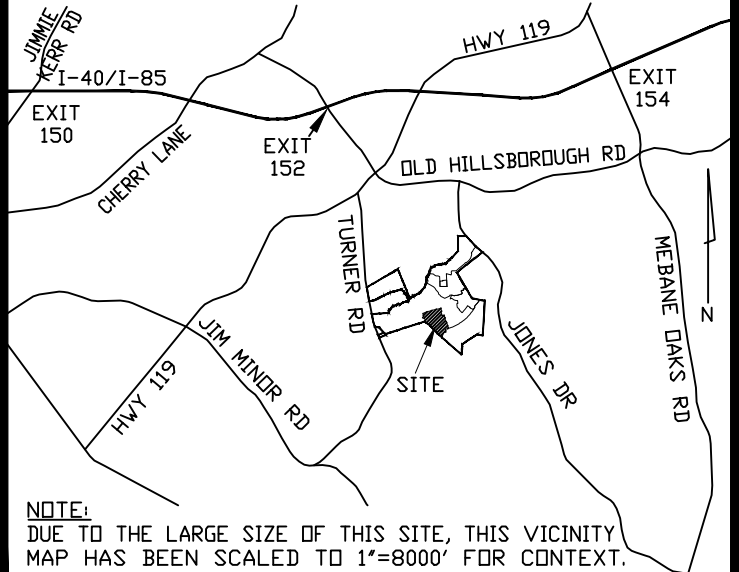
N.C. CRD N.A.D. 83 (2017)

LINE TYPE AND SYMBOL LEGENDS APPLIES TO ALL 9 SHEETS:

- | | | | |
|-----|------------------------------|--------|------------------------|
| ① | EXISTING LOT OF RECORD | D.B. | DEED BOOK |
| --- | EXISTING RIGHT OF WAY | P.B. | PLAT BOOK |
| --- | PROPERTY LINE (NOT SURVEYED) | PG. | PAGE |
| --- | EASEMENT | □ | STONE |
| --- | PROPERTY LINE | ○ | NIP NEW IRON PIPE |
| --- | CENTERLINE | ○ | EIP EXISTING IRON PIPE |
| --- | CREEK | △ | CP COMPUTED POINT |
| | | ESM.T. | EASEMENT |
| | | SE. | SIGHT EASEMENT |
| | | B.C. | BACK OF CURB |
| | | BFE | BASE FLOOD ELEVATION |
| | | XXXX | DENOTES ADDRESS |



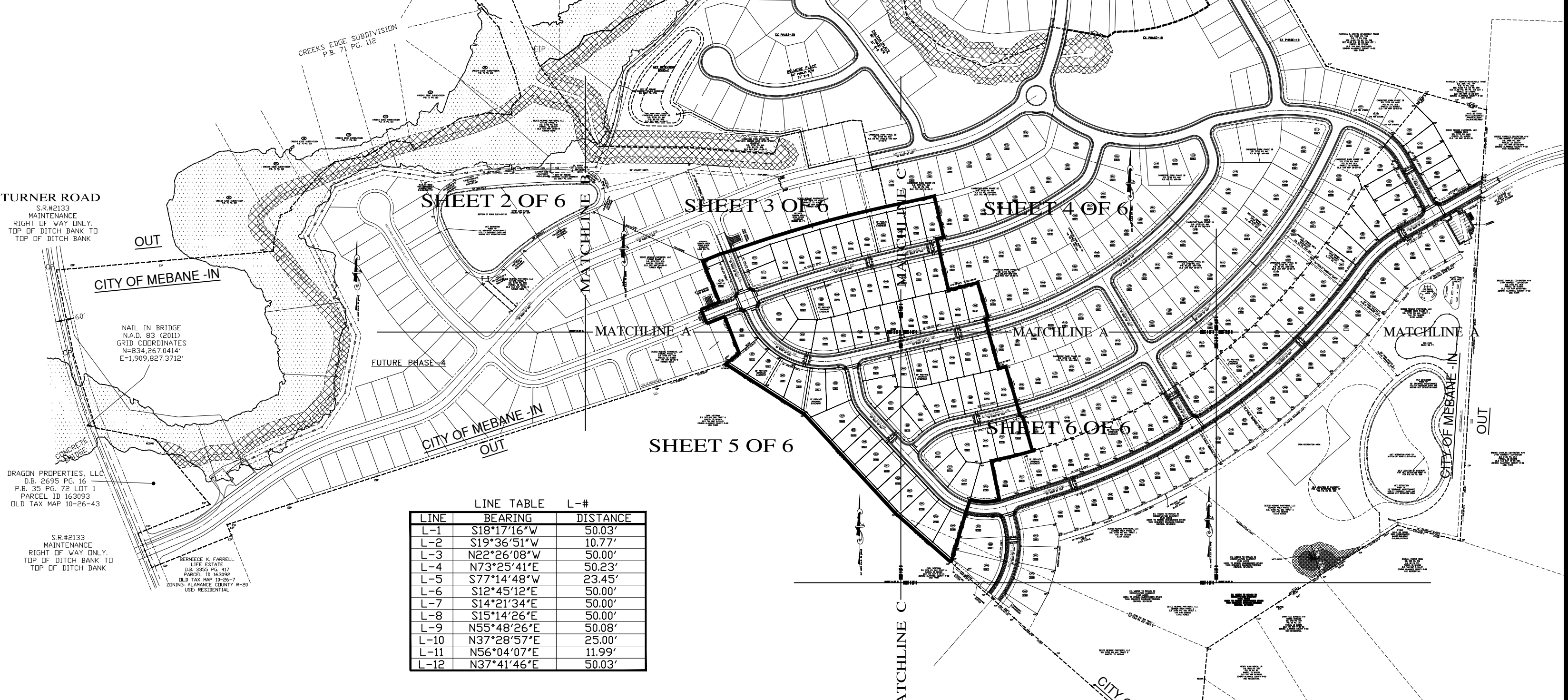
BUFFER NOTE:
STREAM BUFFERS ARE TO REMAIN UNDISTURBED IN COMMON AREAS.



NOTE:
DUE TO THE LARGE SIZE OF THIS SITE, THIS VICINITY MAP HAS BEEN SCALED TO 1"=8000' FOR CONTEXT.

DEVELOPMENT STANDARDS:
FRONT SETBACK.....20'(MIN. 25' TO GARAGE)
SIDE SETBACK.....15' AGGREGATE
REAR SETBACK.....15'
MAXIMUM BUILDING HEIGHT.....35'

PHASE 3B SITE DATA:
TOTAL AREA = 16,018 ACRES
PHASE 3B = 75 LOTS
PHASE 3B LOTS = 12,187 ACRES
LF OF STREET PHASE 3B = 2,855± LF
AREA IN PUBLIC R/W PHASE 3B = 3,254 AC
PRIVATE COMMON AREA OPEN SPACE (PASSIVE) = 0.667 ACRES



LINE TABLE L-#

LINE	BEARING	DISTANCE
L-1	S18°17'16"W	50.03'
L-2	S19°36'51"W	10.77'
L-3	N22°26'08"W	50.00'
L-4	N73°25'41"E	50.23'
L-5	S77°14'48"W	23.45'
L-6	S12°45'12"E	50.00'
L-7	S14°21'34"E	50.00'
L-8	S15°14'26"E	50.00'
L-9	N55°48'26"E	50.08'
L-10	N37°28'57"E	25.00'
L-11	N56°04'07"E	11.99'
L-12	N37°41'46"E	50.03'

CURVE TABLE C-#. CURVE WITH -RADIUS INDICATES A NEGATIVE RADIUS OR CURVE TO THE LEFT.

CURVE	CHORD BEARING	CHORD	ARCLEN	RADIUS
C-1	S68°01'57"W	62.99'	62.99'	-3,857.00'
C-2	N68°02'32"E	65.16'	65.16'	3,907.00'
C-3	S75°24'48"W	10.29'	10.29'	1,298.16'
C-4	N74°38'12"E	6.90'	6.90'	-1,612.49'
C-38	N89°24'57"W	95.89'	97.06'	180.00'
C-39	N60°19'53"W	84.87'	85.67'	180.00'
C-40	N44°43'11"W	12.41'	12.41'	180.00'
C-41	N02°15'20"E	28.28'	31.41'	200.00'
C-42	N59°37'15"E	85.66'	86.33'	200.00'
C-43	N74°36'59"E	18.36'	18.37'	200.00'
C-44	N76°51'28"E	21.90'	21.90'	-1,612.49'
C-45	N75°56'50"E	48.10'	48.10'	-1,612.49'
C-46	S75°54'32"W	62.69'	62.69'	1,562.49'
C-47	S77°09'09"W	5.14'	5.14'	1,562.49'
C-48	S75°30'55"W	15.11'	15.11'	-250.00'
C-49	S68°07'23"W	49.32'	49.40'	-250.00'
C-50	S67°38'41"W	55.58'	50.77'	-250.00'
C-51	S49°02'29"W	15.58'	15.58'	-250.00'
C-52	N87°44'40"W	28.28'	31.41'	200.00'
C-53	N26°59'35"W	40.72'	41.24'	75.00'
C-54	N32°58'02"E	27.89'	30.86'	200.00'
C-55	N76°24'33"E	36.13'	36.13'	-1,348.16'
C-56	S76°24'30"W	34.79'	34.79'	1,298.16'
C-57	S88°52'47"W	91.28'	91.92'	225.00'
C-58	N66°13'16"W	102.73'	103.64'	225.00'
C-59	N37°34'10"W	119.92'	121.39'	225.00'
C-60	N24°11'50"E	28.92'	32.33'	200.00'
C-61	N71°02'22"E	71.59'	71.59'	3,857.00'
C-62	N72°10'52"E	82.11'	82.11'	3,857.00'
C-63	N73°12'41"E	56.61'	56.61'	3,857.00'
C-64	N74°03'13"E	56.77'	56.77'	3,857.00'

CURVE	CHORD BEARING	CHORD	ARCLEN	RADIUS
C-65	N74°53'49"E	56.77'	56.77'	3,857.00'
C-66	N75°44'24"E	56.77'	56.77'	3,857.00'
C-67	N76°35'00"E	56.77'	56.77'	3,857.00'
C-68	N77°07'33"E	16.28'	16.28'	3,857.00'
C-69	S76°53'54"W	47.53'	47.53'	-3,907.00'
C-70	S76°08'48"W	55.00'	55.00'	-3,907.00'
C-71	S75°20'24"W	55.00'	55.00'	-3,907.00'
C-72	S74°32'00"W	55.00'	55.00'	-3,907.00'
C-73	S73°43'37"W	55.00'	55.00'	-3,907.00'
C-74	S72°55'13"W	55.00'	55.00'	-3,907.00'
C-75	S72°06'49"W	55.00'	55.00'	-3,907.00'
C-76	S71°04'44"W	86.11'	86.11'	-3,907.00'
C-77	N65°49'58"W	27.65'	30.53'	200.00'
C-78	S23°30'37"W	28.59'	31.85'	200.00'
C-79	S68°49'37"W	41.84'	41.84'	-3,907.00'
C-80	N68°49'54"E	44.61'	44.61'	3,857.00'
C-81	S66°28'31"E	27.97'	30.97'	200.00'
C-82	S29°47'58"E	86.93'	87.30'	-275.00'
C-83	S44°05'36"E	50.42'	50.49'	-275.00'
C-84	S54°36'44"E	50.42'	50.49'	-275.00'
C-85	S65°07'53"E	50.42'	50.49'	-275.00'
C-86	S75°39'01"E	50.42'	50.49'	-275.00'
C-87	S86°10'10"E	50.42'	50.49'	-275.00'
C-88	N84°02'42"E	43.40'	43.44'	-275.00'
C-89	S55°51'41"E	28.10'	31.16'	200.00'
C-90	S14°20'22"E	13.51'	13.52'	-125.00'
C-91	S30°05'27"E	54.76'	55.21'	-125.00'
C-92	S45°43'43"E	23.95'	23.96'	-230.00'
C-93	S54°54'15"E	49.61'	49.71'	-230.00'
C-94	S67°17'10"E	49.61'	49.71'	-230.00'

SURVEYORS NOTES:

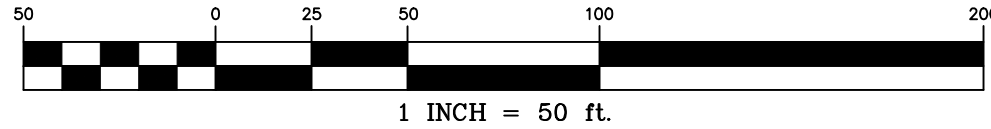
- AREA IS DETERMINED BY LEAST SQUARES METHOD.
- BOUNDARY LINES NOT SURVEYED ARE SHOWN DASHED.
- THIS SURVEY IS OF AN ACTUAL FIELD SURVEY HAVING AN ERROR OF LESS THAN 1:21,995' D.M., D.Y.
- ALL DISTANCES SHOWN HEREON ARE IN US SURVEY FEET UNLESS INDICATED OTHERWISE.
- CITY OF MEBANE ZONING PUD-R-12 WITH ANNEXATION. PROPERTY ANNEXED 11-20-2017 PER PLAT BOOK 79 PAGE 41.
- EVANS ENGINEERING HAS NOT PERFORMED ANY TITLE SEARCH.
- TOTAL AREA = 16,018 ACRES MORE OR LESS.
- MAIL PICK-UP WILL BE PROVIDED AT THE PARKING AREA ADJACENT TO LOT 185.
- STRUCTURAL STORMWATER BMP MAINTENANCE AGREEMENT FOR WET DETENTION POND-G AND POND-H RECORDED IN DEED BOOK 4585 PAGE 28 THROUGH 35.

SHEET 1 OF 6
FINAL PLAT
CAMBRIDGE PARK PHASE 3B
MELVILLE TOWNSHIP~ALAMANCE COUNTY
MEBANE~NORTH CAROLINA
JUNE 11, 2024

300 0 150 300 600 1200
1 INCH = 300 ft.

EVANS ENGINEERING, INC.
ENGINEERS, SURVEYORS, PLANNERS
4609 DUNDAS DRIVE
PHONE: (336) 854-8877
GREENSBORO, N.C. 27407
FIRM LICENSE C-1088

SHEET 2 OF 6
FINAL PLAT
CAMBRIDGE PARK PHASE 3B
MELVILLE TOWNSHIP~ALAMANCE COUNTY
MEBANE~NORTH CAROLINA
JUNE 11, 2024



EVANS ENGINEERING, INC.
ENGINEERS, SURVEYORS, PLANNERS
 4609 DUNDAS DRIVE GREENSBORO, N.C. 27407
 PHONE: (336) 854-8877 FIRM LICENSE C-0188

N.C.G.S. MONUMENT
 "HAWFIELD"
 N.A.D. 83 (2011)
 GRID COORDINATES
 AS PUBLISHED.
 N=840,044.20'
 E=1,909,650.81'

S14°42'38"E
 OBSERVATION
 CF=0.99994529
 GRID=316644

NOT TO SCALE

19
 CREEKS EDGE SUBDIVISION
 P.B. 71 PG. 113

18
 CREEKS EDGE SUBDIVISION
 P.B. 71 PG. 113

14
 CREEKS EDGE SUBDIVISION
 P.B. 71 PG. 113

13
 CREEKS EDGE SUBDIVISION
 P.B. 71 PG. 113

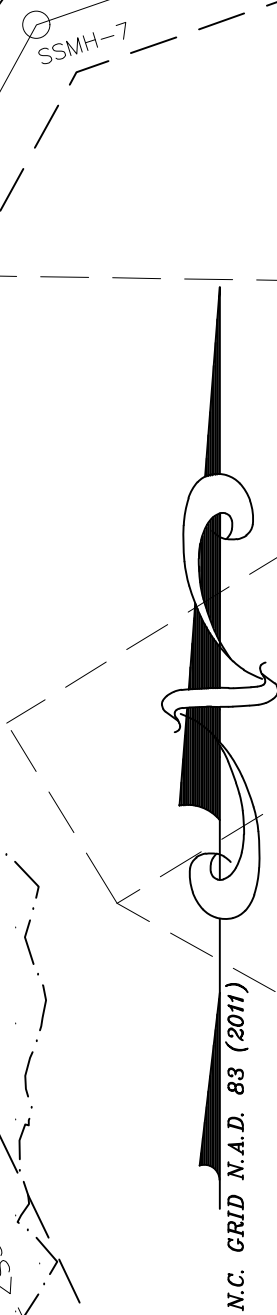
12
 CREEKS EDGE SUBDIVISION
 P.B. 71 PG. 113

DESCO MEBANE PARTNERS, LLC
 FUTURE PHASE 4
 D.B. 3752 PG. 650
 PARCEL ID 163107
 OLD TAX MAP 10-26-5
 TURNER ROAD

CREEK FIELD LOCATED
 SEPT. 08, 2018.
 PROPERTY LINE FOLLOWS
 CENTER OF CREEK

OUT
 CITY OF MEBANE - IN

OUT
 CITY OF MEBANE - IN



ROBERT S. DISCHINGER PLS-4521

FUTURE AMBROSE PLACE

ABINGTON DR.
 60' RIGHT OF WAY

MATCHLINE B

FUTURE ABINGTON J
 60' RIGHT OF WAY

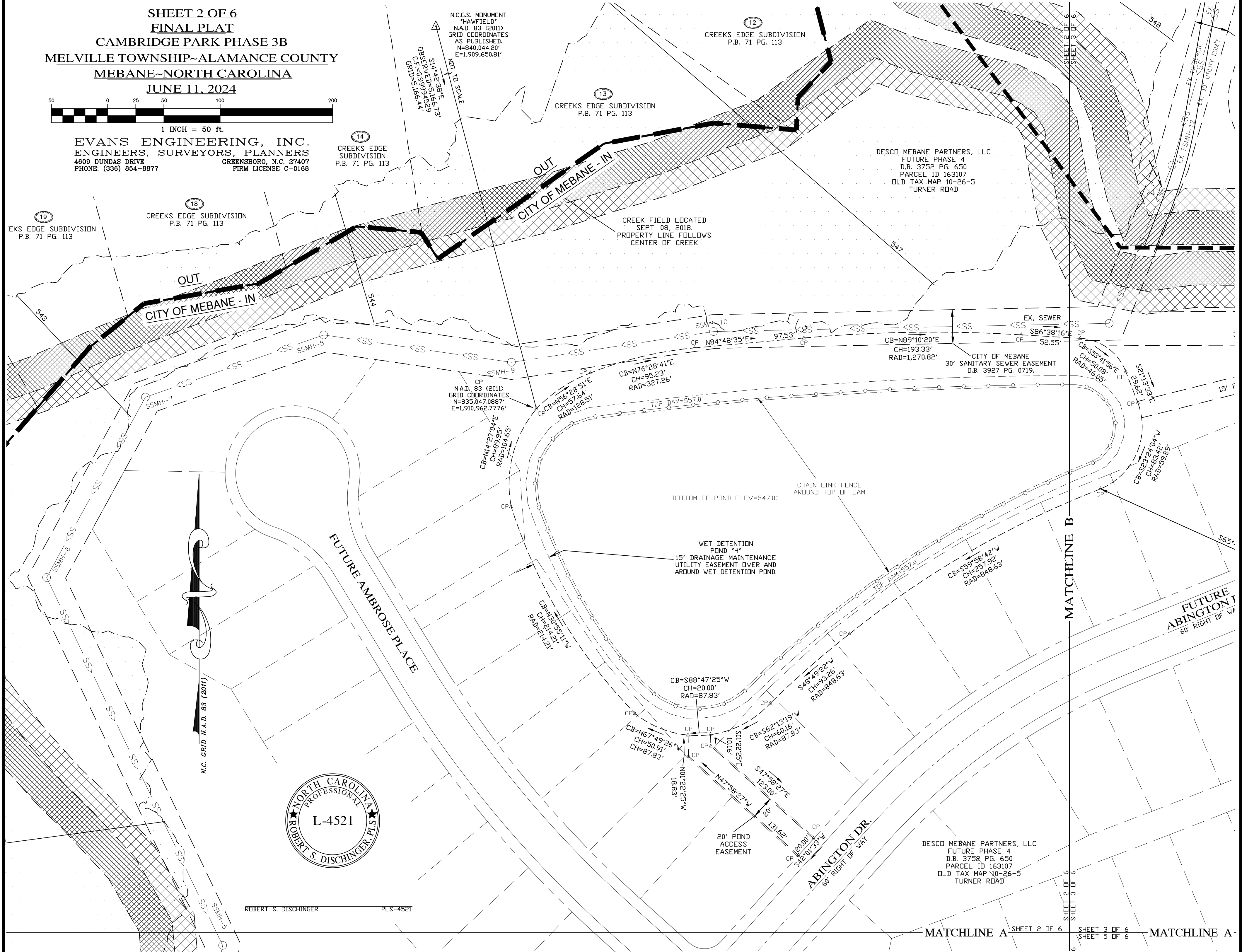
DESCO MEBANE PARTNERS, LLC
 FUTURE PHASE 4
 D.B. 3752 PG. 650
 PARCEL ID 163107
 OLD TAX MAP 10-26-5
 TURNER ROAD

MATCHLINE A

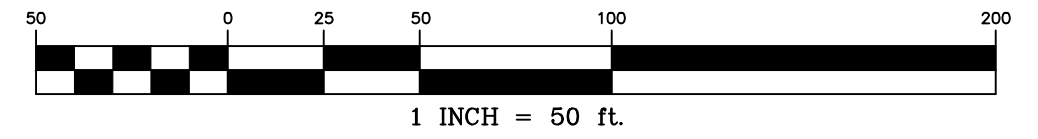
SHEET 2 OF 6

SHEET 3 OF 6

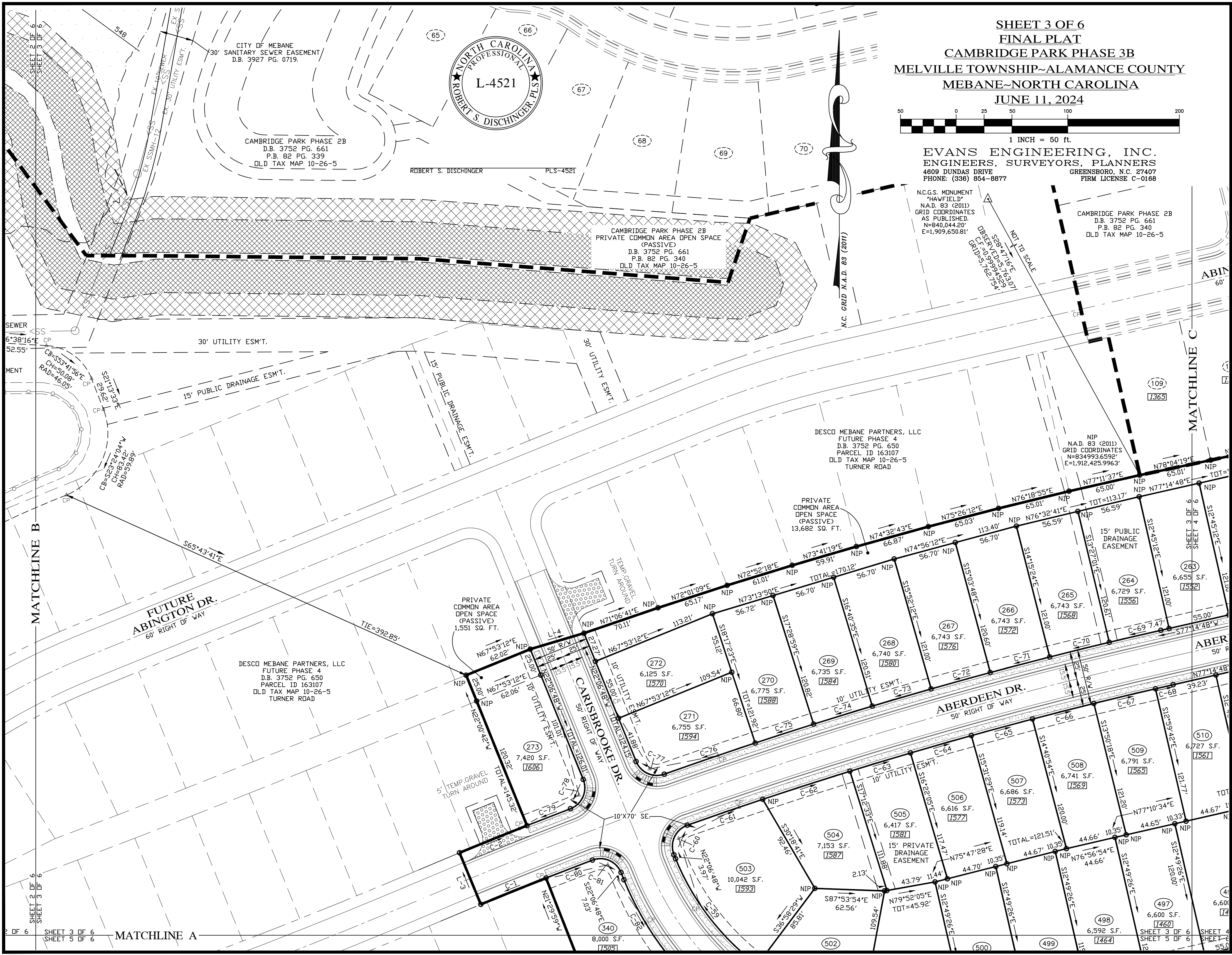
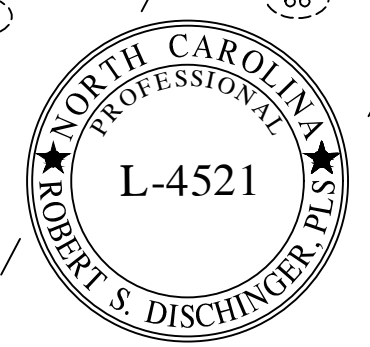
MATCHLINE A



SHEET 3 OF 6
 FINAL PLAT
 CAMBRIDGE PARK PHASE 3B
 MELVILLE TOWNSHIP~ALAMANCE COUNTY
 MEBANE~NORTH CAROLINA
 JUNE 11, 2024



EVANS ENGINEERING, INC.
 ENGINEERS, SURVEYORS, PLANNERS
 4809 DUNDAS DRIVE GREENSBORO, N.C. 27407
 PHONE: (336) 854-8877 FIRM LICENSE C-0168



CITY OF MEBANE
 30' SANITARY SEWER EASEMENT
 D.B. 3927 PG. 0719.

CAMBRIDGE PARK PHASE 2B
 D.B. 3752 PG. 661
 P.B. 82 PG. 339
 OLD TAX MAP 10-26-5

ROBERT S. DISCHINGER PLS-4521

CAMBRIDGE PARK PHASE 2B
 PRIVATE COMMON AREA OPEN SPACE
 (PASSIVE)
 D.B. 3752 PG. 661
 P.B. 82 PG. 340
 OLD TAX MAP 10-26-5

N.C.G.S. MONUMENT
 "HAWFIELD"
 N.A.D. 83 (2011)
 GRID COORDINATES
 AS PUBLISHED.
 N=840,044.20'
 E=1,909,650.81'

CAMBRIDGE PARK PHASE 2B
 D.B. 3752 PG. 661
 P.B. 82 PG. 340
 OLD TAX MAP 10-26-5

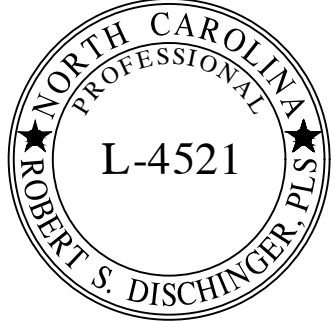
DESCO MEBANE PARTNERS, LLC
 FUTURE PHASE 4
 D.B. 3752 PG. 650
 PARCEL ID 163107
 OLD TAX MAP 10-26-5
 TURNER ROAD

DESCO MEBANE PARTNERS, LLC
 FUTURE PHASE 4
 D.B. 3752 PG. 650
 PARCEL ID 163107
 OLD TAX MAP 10-26-5
 TURNER ROAD

PRIVATE COMMON AREA
 OPEN SPACE
 (PASSIVE)
 1,551 SQ. FT.

PRIVATE COMMON AREA
 OPEN SPACE
 (PASSIVE)
 13,682 SQ. FT.

NIP
 N.A.D. 83 (2011)
 GRID COORDINATES
 N=834993.6592'
 E=1,912,425.9963'



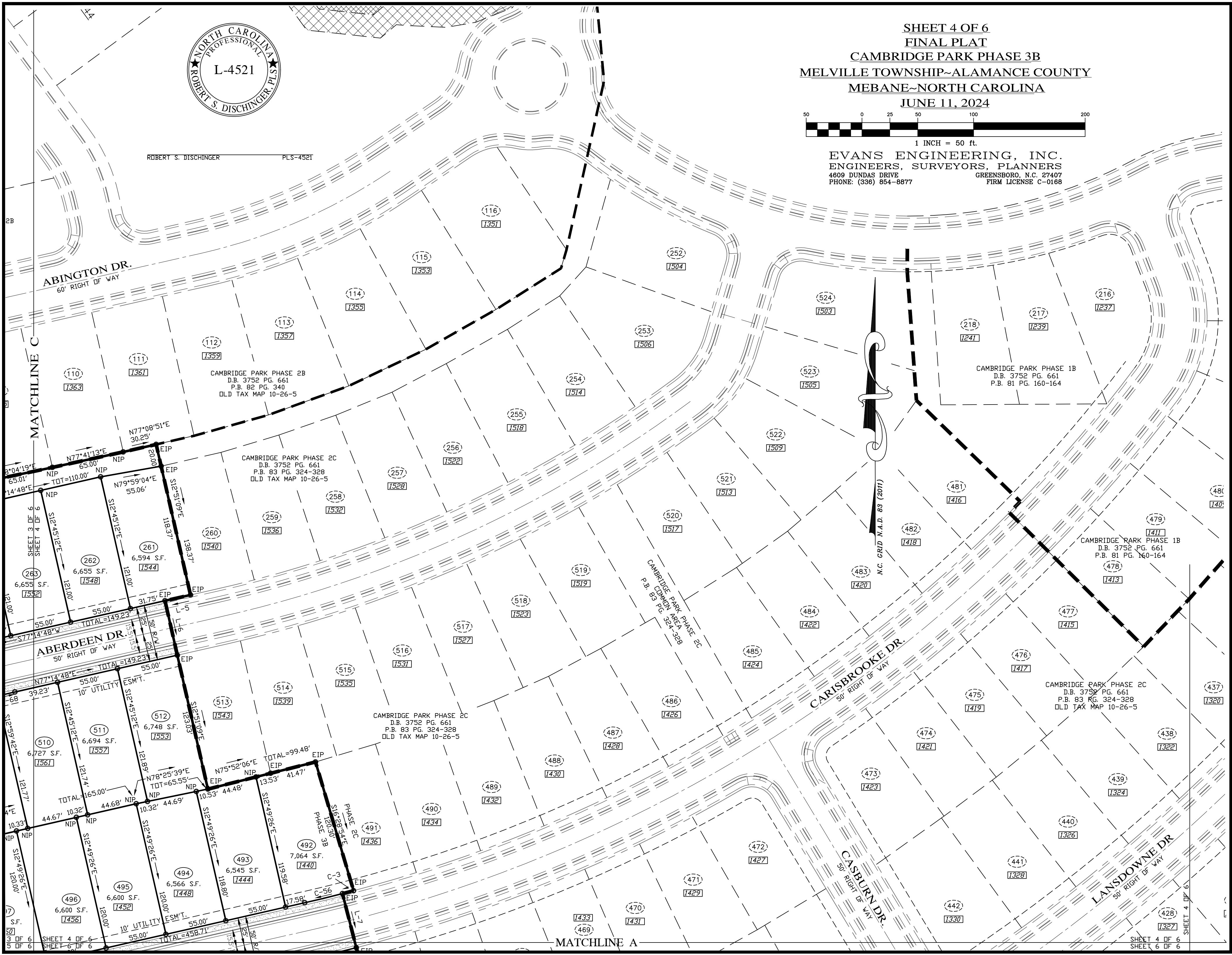
ROBERT S. DISCHINGER PLS-4521

SHEET 4 OF 6
FINAL PLAT
CAMBRIDGE PARK PHASE 3B
MELVILLE TOWNSHIP~ALAMANCE COUNTY
MEBANE~NORTH CAROLINA
JUNE 11, 2024



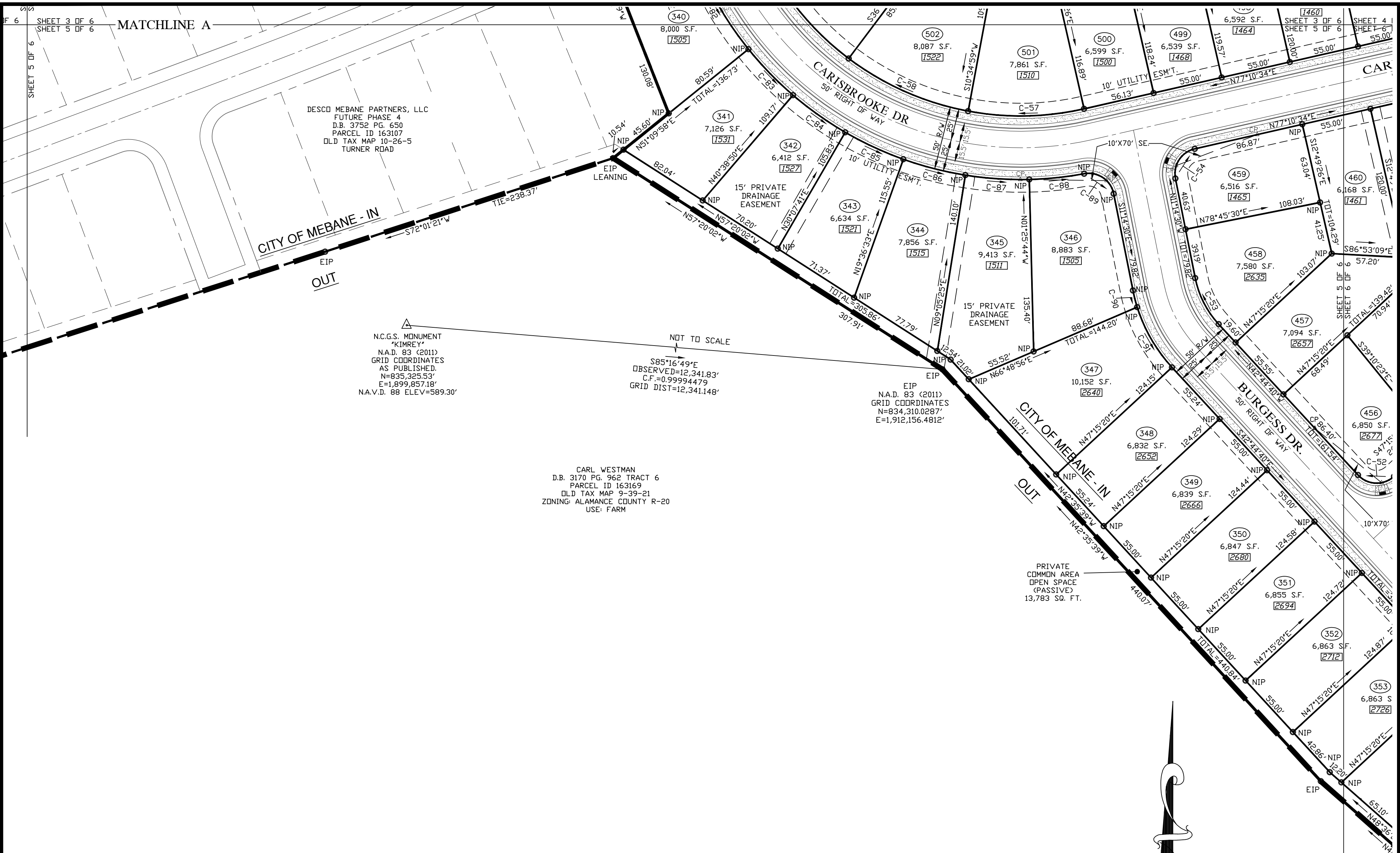
1 INCH = 50 ft.

EVANS ENGINEERING, INC.
ENGINEERS, SURVEYORS, PLANNERS
4609 DUNDAS DRIVE GREENSBORO, N.C. 27407
PHONE: (336) 854-8877 FIRM LICENSE C-0168



MATCHLINE A

SHEET 4 OF 6
SHEET 6 OF 6



DESCO MEBANE PARTNERS, LLC
 FUTURE PHASE 4
 D.B. 3752 PG. 650
 PARCEL ID 163107
 OLD TAX MAP 10-26-5
 TURNER ROAD

N.C.G.S. MONUMENT
 "KIMREY"
 N.A.D. 83 (2011)
 GRID COORDINATES
 AS PUBLISHED.
 N=835,325.53'
 E=1,899,857.18'
 N.A.V.D. 88 ELEV=589.30'

NOT TO SCALE
 S85°16'49"E
 OBSERVED=12,341.83'
 C.F.=0.99994479
 GRID DIST=12,341.148'

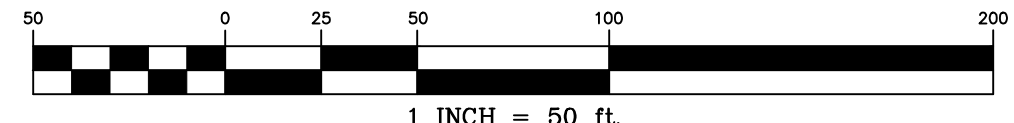
EIP
 N.A.D. 83 (2011)
 GRID COORDINATES
 N=834,310.0287'
 E=1,912,156.4812'

CARL WESTMAN
 D.B. 3170 PG. 962 TRACT 6
 PARCEL ID 163169
 OLD TAX MAP 9-39-21
 ZONING: ALAMANCE COUNTY R-20
 USE: FARM

PRIVATE
 COMMON AREA
 OPEN SPACE
 (PASSIVE)
 13,783 SQ. FT.



SHEET 5 OF 6
FINAL PLAT
CAMBRIDGE PARK PHASE 3B
MELVILLE TOWNSHIP~ALAMANCE COUNTY
MEBANE~NORTH CAROLINA
JUNE 11, 2024



EVANS ENGINEERING, INC.
 ENGINEERS, SURVEYORS, PLANNERS
 4609 DUNDAS DRIVE GREENSBORO, N.C. 27407
 PHONE: (336) 854-8877 FIRM LICENSE C-0168

ROBERT S. DISCHINGER PLS-4521

N.C. GRID N.A.D. 83 (2011)

PR
 COMM
 OPEN
 (PA
 13,78:
 D.B.
 DL
 ZON:



AGENDA ITEM #5D

SUB 24-04

Final Subdivision Plat

North First Street Townes, Ph.1

REAPPROVAL

Presenter

Ashley Ownbey, Development Director

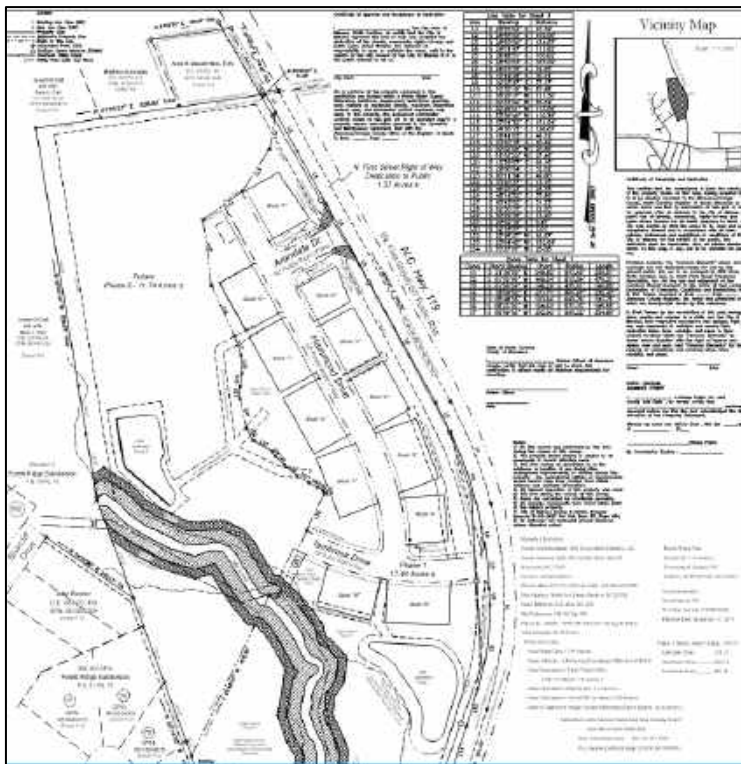
Applicant

DRB Group North Carolina, LLC
3000 RDU Center Drive, Suite 202
Morrisville, NC 27560

Public Hearing

Yes No

Final Plat



Property

North First Street Townes
Alamance County GPIN
9816907457

Proposed Zoning

N/A

Current Zoning

R-8 (CD)

Size

+/-17.44 acres

Surrounding Zoning

R-8, R-12, R-20

Surrounding Land Uses

Residential, Vacant,

Utilities

Extended at developer's expense.

Floodplain

Yes

Watershed

Yes

City Limits

Yes

Summary

DRB Group North Carolina, LLC is requesting approval of the Final Plat for Phase 1 of the North First Street Townes townhome development (approved for rezoning by the City Council on 07/11/2022). The final plat will include a total area of +/- 17.44 acres featuring 12 townhome blocks in +/- 3.45 acres, +/- 12.22 acres of open space, +/- 1.43 acres of dedicated right of way, and +/- 1,610 linear feet in new streets.

The Technical Review Committee (TRC) has reviewed the final plat, and the applicant has revised the plat to reflect comments. All infrastructure must be completed and approved to meet the City of Mebane specifications. All infrastructure not completed shall be bonded or a letter of credit provided prior to recordation.

This major subdivision plat was originally approved by the City Council at its April 8, 2024, meeting.

Financial Impact

The developer has extended utilities at his own expense.

Recommendation

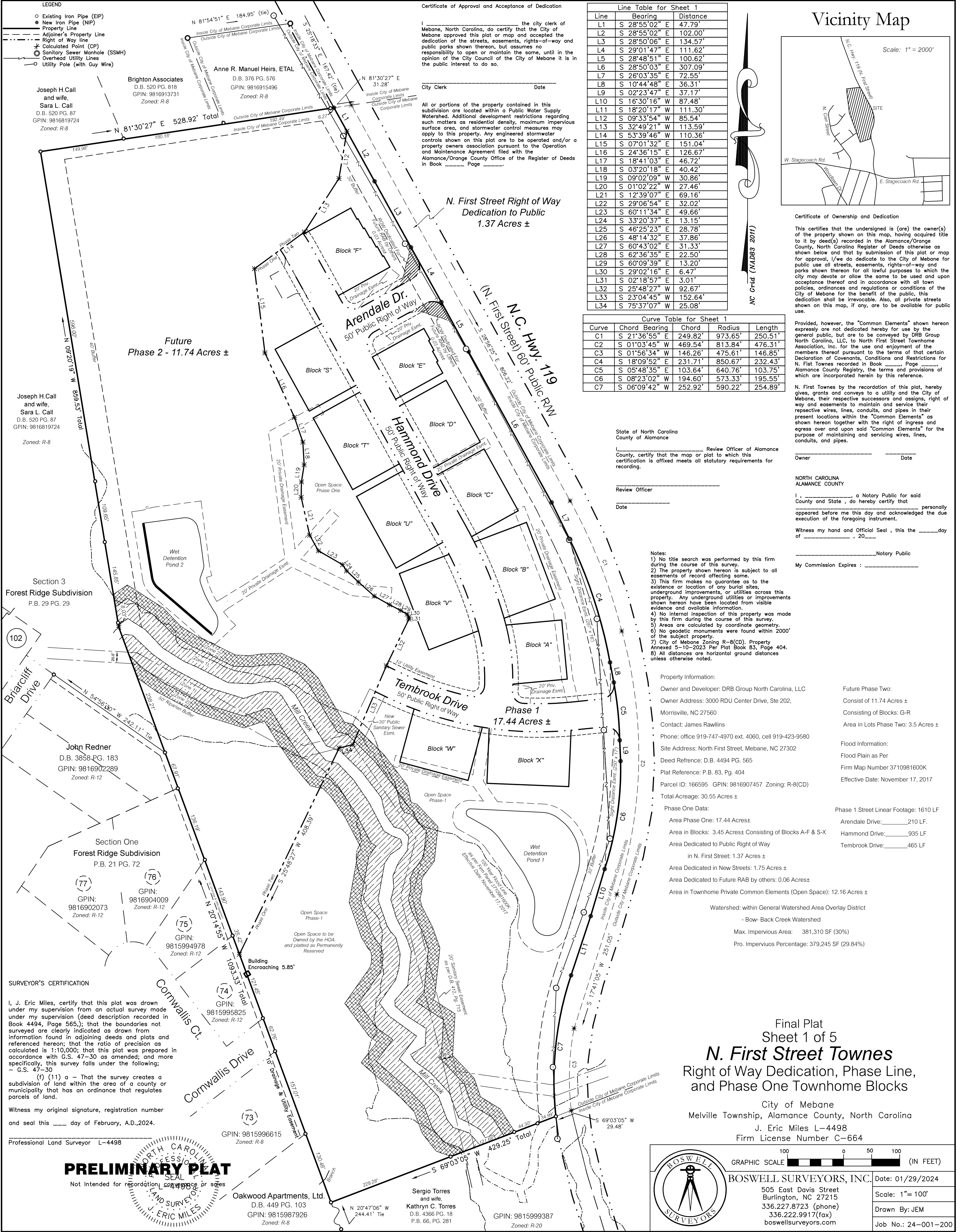
Staff recommends approval of the final plat.

Suggested Motion

Motion to approve the final plat as presented.

Attachments

1. Final Plat



LEGEND

- Existing Iron Pipe (EIP)
- New Iron Pipe (NIP)
- Property Line
- Right of Way Line
- Adjoiner's Property Line
- Calculated Point (CP)
- Sanitary Sewer Manhole (SSMH)
- Overhead Utility Lines
- Utility Pole (with Guy Wire)

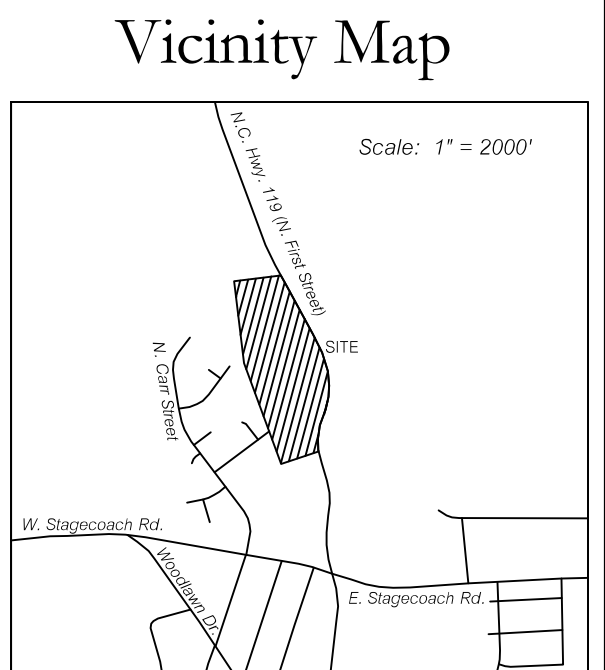
Certificate of Approval and Acceptance of Dedication

I, _____, the city clerk of Mebane, North Carolina, do certify that the City of Mebane approved this plat or map and accepted the dedication of the streets, easements, rights-of-way and public parks shown thereon, but assumes no responsibility to open or maintain the same, until in the opinion of the City Council of the City of Mebane it is in the public interest to do so.

City Clerk _____ Date _____

Line Table for Sheet 1

Line	Bearing	Distance
L1	S 28°55'02" E	47.79'
L2	S 28°55'02" E	102.00'
L3	S 28°50'06" E	134.57'
L4	S 29°01'47" E	111.62'
L5	S 28°48'51" E	100.62'
L6	S 28°50'03" E	307.09'
L7	S 26°03'35" E	72.55'
L8	S 10°44'48" E	36.31'
L9	S 02°23'47" E	37.17'
L10	S 16°30'16" W	87.48'
L11	S 18°20'17" W	111.30'
L12	S 09°33'54" W	85.54'
L13	S 32°49'21" W	113.59'
L14	S 53°39'46" W	110.36'
L15	S 07°01'32" E	151.04'
L16	S 24°36'15" E	126.67'
L17	S 18°41'03" E	46.72'
L18	S 03°20'18" E	40.42'
L19	S 09°02'09" W	30.86'
L20	S 01°02'22" W	27.46'
L21	S 12°39'07" E	69.16'
L22	S 29°06'54" E	32.02'
L23	S 60°11'34" E	49.66'
L24	S 33°20'37" E	13.15'
L25	S 46°25'23" E	28.78'
L26	S 48°14'32" E	37.86'
L27	S 60°43'02" E	31.33'
L28	S 62°36'35" E	22.50'
L29	S 60°09'39" E	13.20'
L30	S 29°02'16" E	6.47'
L31	S 02°18'57" E	3.01'
L32	S 25°48'27" W	92.67'
L33	S 23°04'45" W	152.64'
L34	S 75°37'07" W	25.08'



All or portions of the property contained in this subdivision are located within a Public Water Supply Watershed. Additional development restrictions regarding such matters as residential density, maximum impervious surface area, and stormwater control measures may apply to this property. Any engineered stormwater controls shown on this plat are to be operated and/or a property owners association pursuant to the Operation and Maintenance Agreement filed with the Alamance/Orange County Office of the Register of Deeds in Book _____ Page _____

Curve Table for Sheet 1

Curve	Chord Bearing	Chord	Radius	Length
C1	S 21°36'55" E	249.82'	973.65'	250.51'
C2	S 01°03'45" W	469.54'	813.84'	476.31'
C3	S 01°56'34" W	146.26'	475.61'	146.85'
C4	S 18°09'52" E	231.71'	850.67'	232.43'
C5	S 05°48'35" E	103.64'	640.76'	103.75'
C6	S 08°23'02" W	194.60'	573.33'	195.55'
C7	S 06°09'42" W	252.92'	590.22'	254.89'

Certificate of Ownership and Dedication

This certifies that the undersigned is (are) the owner(s) of the property shown on this map, having acquired title to it by deed(s) recorded in the Alamance/Orange County, North Carolina Register of Deeds otherwise as shown below and that by submission of this plat or map for approval, I/we do dedicate to the City of Mebane for public use all streets, easements, rights-of-way and parks shown thereon for all lawful purposes to which the city may devote or allow the same to be used and upon acceptance thereof and in accordance with all town policies, ordinances and regulations or conditions of the City of Mebane for the use and enjoyment of the public, this dedication shall be irrevocable. Also, all private streets shown on this map, if any, are to be available for public use.

Provided, however, the "Common Elements" shown hereon expressly are not dedicated hereby for use by the general public, but are to be conveyed by DRB Group North Carolina, LLC, to North First Street Townhome Association, Inc. for the use and enjoyment of the members thereof pursuant to the terms of that certain Declaration of Covenants, Conditions and Restrictions for N. First Towns recorded in Book _____ Page _____, Alamance County Registry, the terms and provisions of which are incorporated herein by this reference.

N. First Towns by the recodation of this plat, hereby gives, grants and conveys to a utility and the City of Mebane, their respective successors and assigns, right of way and easements to maintain and service their respective wires, lines, conduits, and pipes in their present locations within the "Common Elements" as shown hereon together with the right of ingress and egress over and upon said "Common Elements" for the purpose of maintaining and servicing wires, lines, conduits, and pipes.

State of North Carolina
County of Alamance

_____, Review Officer of Alamance County, certify that the map or plat to which this certification is affixed meets all statutory requirements for recording.

Review Officer _____
Date _____

Owner _____ Date _____

NORTH CAROLINA
ALAMANCE COUNTY

I, _____, a Notary Public for said County and State, do hereby certify that _____ personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and Official Seal, this the _____ day of _____, 20____.

_____, Notary Public

My Commission Expires : _____

- Notes:**
- No title search was performed by this firm during the course of this survey.
 - The property shown hereon is subject to all easements of record affecting same.
 - This firm makes no guarantee as to the existence or location of any burial sites, underground improvements, or utilities across this property. Any underground utilities or improvements shown hereon have been located from visible evidence and available information.
 - No internal inspection of this property was made by this firm during the course of this survey.
 - Areas are calculated by coordinate geometry.
 - No geodetic monuments were found within 2000' of the subject property.
 - City of Mebane Zoning R-8(CD), Property Annexed 5-10-2023 Per Plat Book 83, Page 404.
 - All distances are horizontal ground distances unless otherwise noted.

Property Information:

- Owner and Developer: DRB Group North Carolina, LLC
- Owner Address: 3000 RDU Center Drive, Ste 202, Morrisville, NC 27560
- Contact: James Rawlins
- Phone: office 919-747-4970 ext. 4060, cell 919-423-9580
- Site Address: North First Street, Mebane, NC 27302
- Deed Reference: D.B. 4494 PG. 565
- Plat Reference: P.B. 83, Pg. 404
- Parcel ID: 166595 GPIN: 9816907457 Zoning: R-8(CD)
- Total Acreage: 30.55 Acres ±

Phase One Data:

- Area Phase One: 17.44 Acres ±
- Area in Blocks: 3.45 Acres ± Consisting of Blocks A-F & S-X
- Area Dedicated to Public Right of Way
- in N. First Street: 1.37 Acres ±
- Area Dedicated in New Streets: 1.75 Acres ±
- Area Dedicated to Future RAB by others: 0.06 Acres ±
- Area in Townhome Private Common Elements (Open Space): 12.16 Acres ±

Future Phase Two:

- Consist of 11.74 Acres ±
- Consisting of Blocks: G-R
- Area in Lots Phase Two: 3.5 Acres ±

Flood Information:

- Flood Plain as Per
- Firm Map Number 3710981600K
- Effective Date: November 17, 2017

Phase 1 Street Linear Footage: 1610 LF

- Arendale Drive: _____ 210 LF
- Hammond Drive: _____ 935 LF
- Tembrook Drive: _____ 465 LF

Watershed: within General Watershed Area Overlay District
- Bow-Back Creek Watershed

Max. Impervious Area: 381,310 SF (30%)
Pro. Impervious Percentage: 379,245 SF (29.84%)

SURVEYOR'S CERTIFICATION

I, J. Eric Miles, certify that this plat was drawn under my supervision from an actual survey made under my supervision (deed description recorded in Book 4494, Page 565.); that the boundaries not surveyed are clearly indicated as drawn from information found in adjoining deeds and plats and referenced hereon; that the ratio of precision as calculated is 1:10,000; that this plat was prepared in accordance with G.S. 47-30 as amended; and more specifically, this survey falls under the following: - G.S. 47-30

(f) (11) a - That the survey creates a subdivision of land within the area of a county or municipality that has an ordinance that regulates parcels of land.

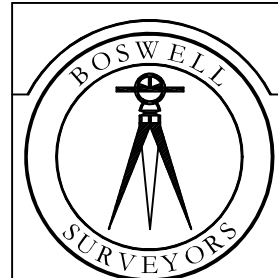
Witness my original signature, registration number and seal this _____ day of February, A.D., 2024.

Professional Land Surveyor L-4498



Oakwood Apartments, Ltd.
D.B. 449 PG. 103
GPIN: 9815987926
Zoned: R-8

Sergio Torres and wife, Kathryn C. Torres
D.B. 4366 PG. 18
P.B. 66, PG. 281
GPIN: 9815999387
Zoned: R-20



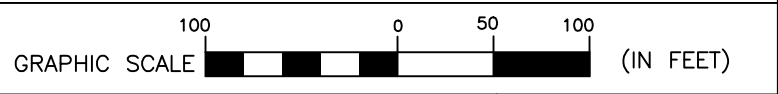
BOSWELL SURVEYORS, INC.

505 East Davis Street
Burlington, NC 27215
336.227.8723 (phone)
336.222.9917 (fax)
boswellsurveyors.com

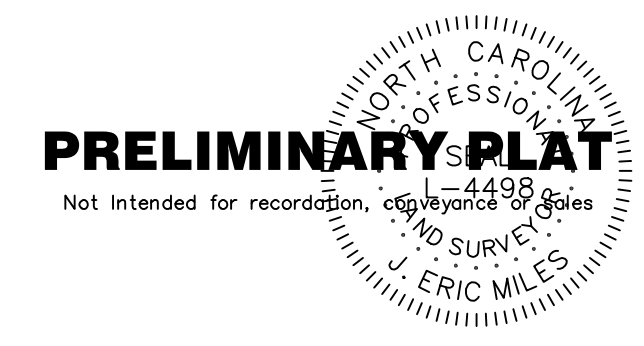
Date: 01/29/2024
Scale: 1" = 100'
Drawn By: JEM
Job No.: 24-001-200

Final Plat
Sheet 1 of 5
N. First Street Townes
Right of Way Dedication, Phase Line,
and Phase One Townhome Blocks

City of Mebane
Melville Township, Alamance County, North Carolina
J. Eric Miles L-4498
Firm License Number C-664



PRELIMINARY PLAT
Not Intended for recordation, conveyance or sales



N.C. CHS (MARS 2017)

Brighton Associates
D.B. 520 PG. 818
PIN: 9816913731
Zoning: R-8
Land Use: Apart: 40+Units

Anne R. Manuel Heirs, ETAL
D.B. 376 PG. 576
PIN: 9816915496
Zoning: R-8
Land Use: Vacant Land

PRELIMINARY PLAT
Not Intended for recordation, conveyance or sales

**Future
Phase 2 - 11.74 Acres ±**

**Block "F"
0.29 Acres ±**

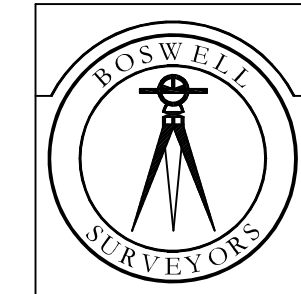
**Block "S"
0.28 Acres ±**

**Block "E"
0.20 Acres ±**

**Block "D"
0.28 Acres ±**

MATCHLINE "A"

- LEGEND**
- Existing Iron Pipe (EIP)
 - New Iron Pipe (NIP)
 - Property Line
 - - - Adjoiner's Property Line
 - · - · - Right of Way line
 - * Calculated Point (CP)
 - ⊙ Sanitary Sewer Manhole (SSMH)
 - Overhead Utility Lines
 - Utility Pole (with Guy Wire)

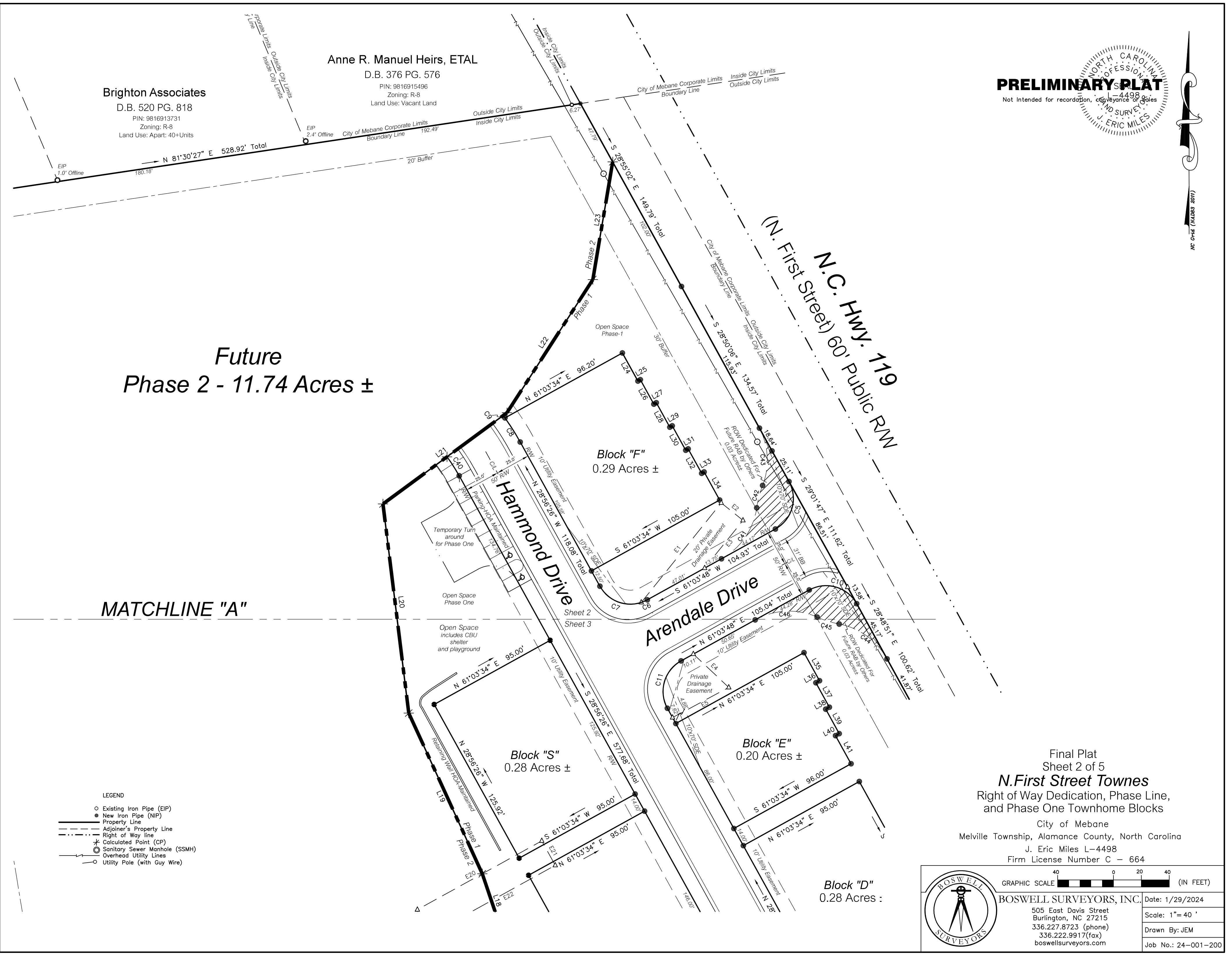


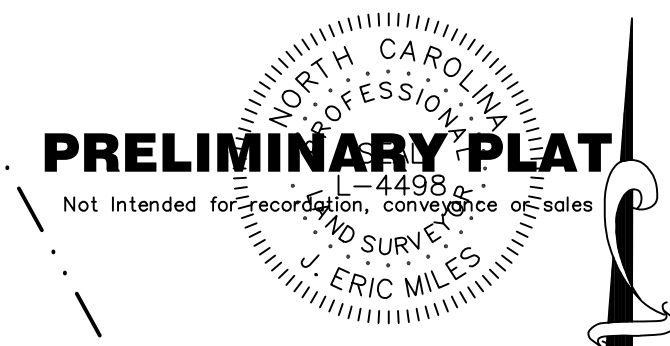
GRAPHIC SCALE (IN FEET)

BOSWELL SURVEYORS, INC. Date: 1/29/2024
505 East Davis Street
Burlington, NC 27215
336.227.8723 (phone)
336.222.9917(fax)
boswellsurveyors.com
Scale: 1" = 40'
Drawn By: JEM
Job No.: 24-001-200

**Final Plat
Sheet 2 of 5
N. First Street Townes**
Right of Way Dedication, Phase Line,
and Phase One Townhome Blocks

City of Mebane
Melville Township, Alamance County, North Carolina
J. Eric Miles L-4498
Firm License Number C - 664





PRELIMINARY PLAT
Not intended for recordation, conveyance of sales

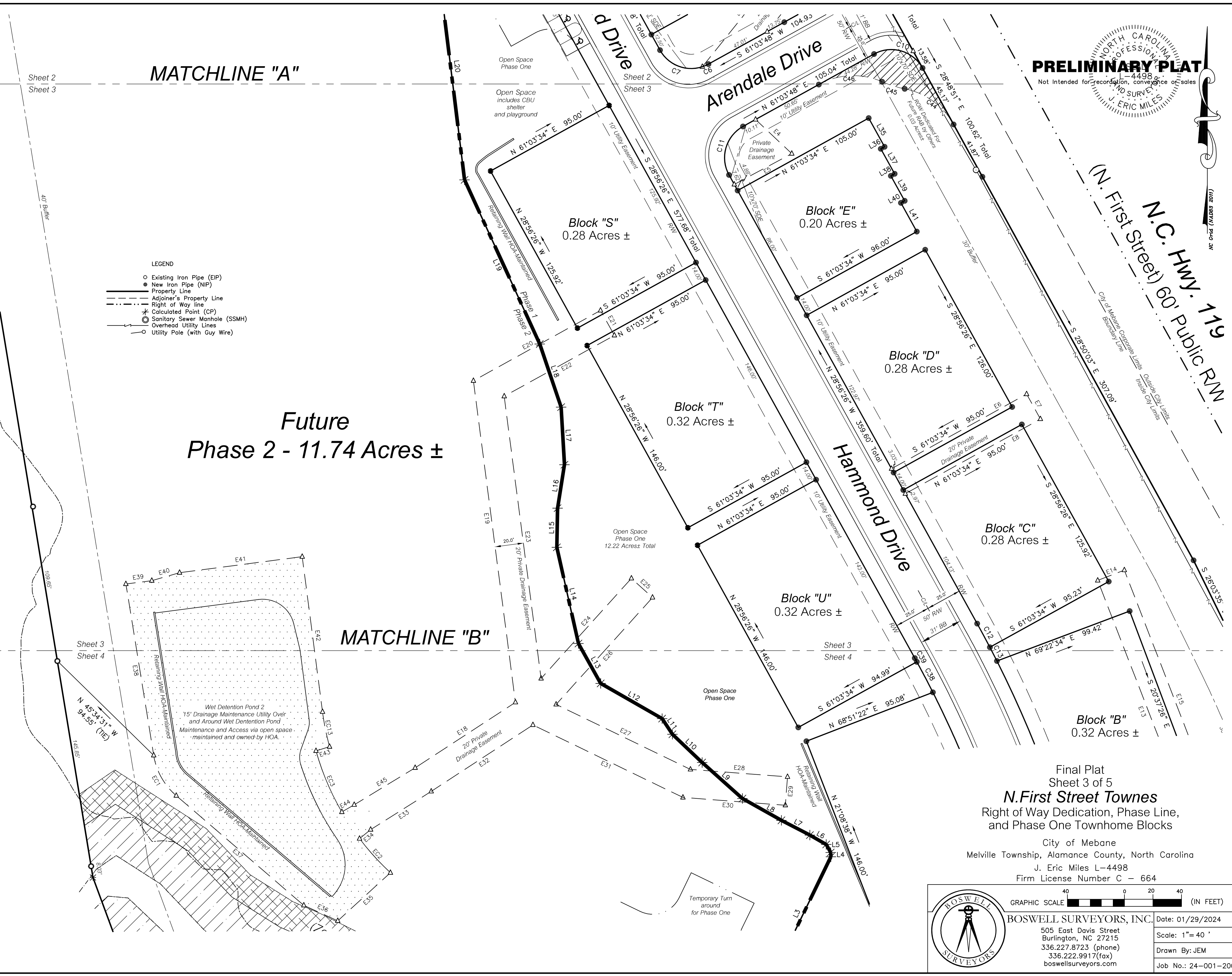
N.C. Hwy. 119
(N. First Street) 60' Public RM
City of Mebane Corporate Limits
Outside City Limits
Inside City Limits

MATCHLINE "A"

MATCHLINE "B"

Future
Phase 2 - 11.74 Acres ±

- LEGEND
- Existing Iron Pipe (EIP)
 - New Iron Pipe (NIP)
 - Property Line
 - Adjoiner's Property Line
 - Right of Way line
 - Calculated Point (CP)
 - Sanitary Sewer Manhole (SSMH)
 - Overhead Utility Lines
 - Utility Pole (with Guy Wire)



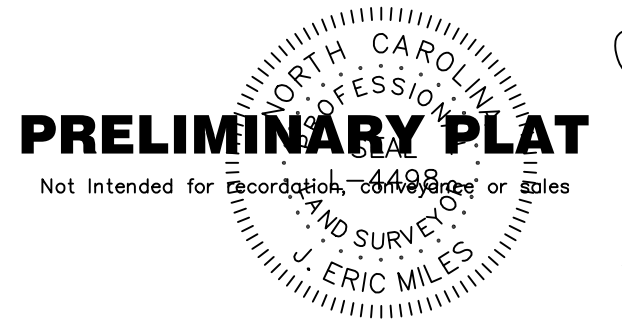
Final Plat
Sheet 3 of 5
N. First Street Townes
Right of Way Dedication, Phase Line,
and Phase One Townhome Blocks

City of Mebane
Melville Township, Alamance County, North Carolina
J. Eric Miles L-4498
Firm License Number C - 664

GRAPHIC SCALE 0 20 40 (IN FEET)

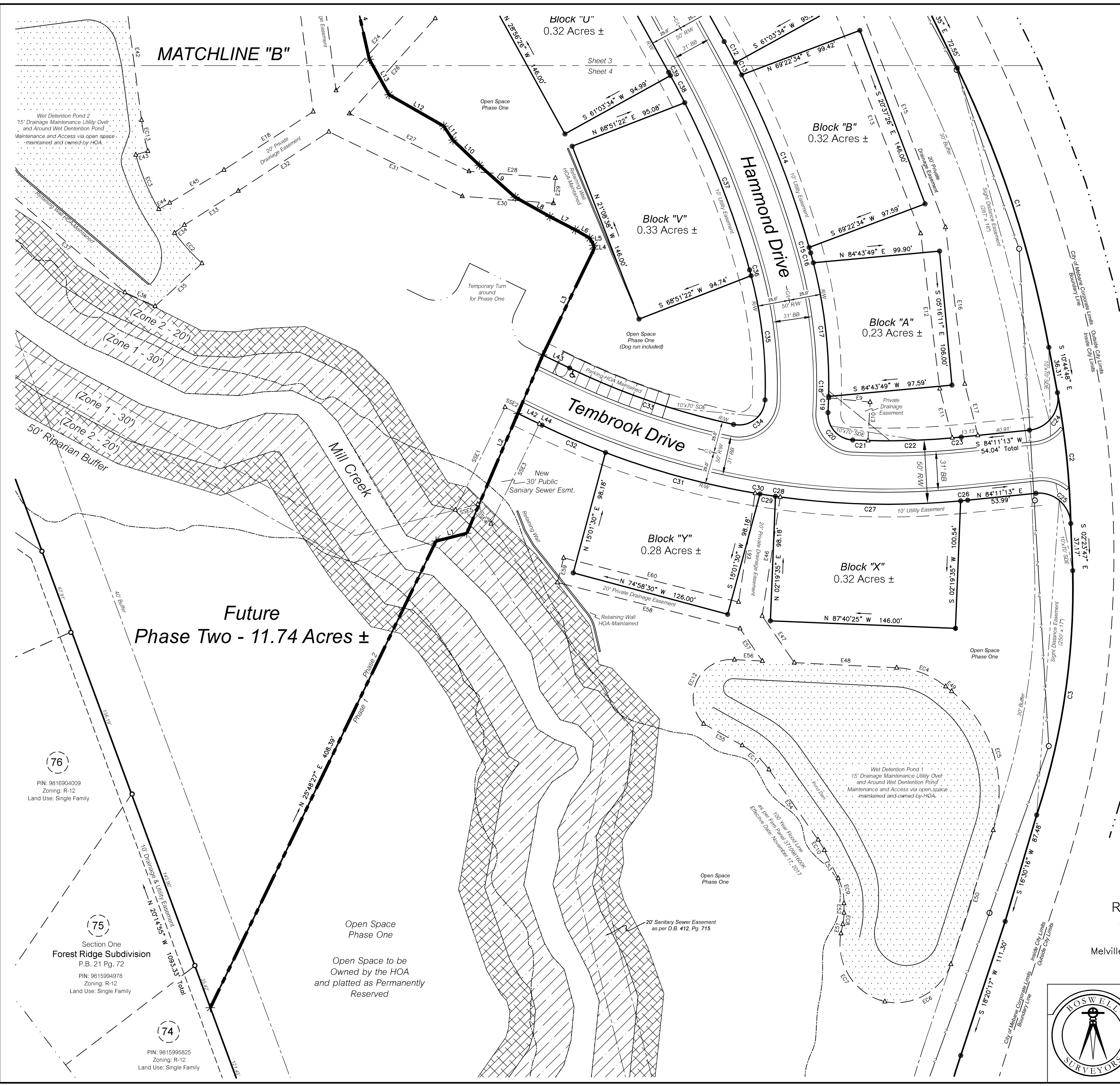
BOSWELL SURVEYORS, INC. Date: 01/29/2024
505 East Davis Street
Burlington, NC 27215
336.227.8723 (phone)
336.222.9917 (fax)
boswellsurveyors.com

Scale: 1" = 40'
Drawn By: JEM
Job No.: 24-001-200



PRELIMINARY PLAT
Not Intended for Recordation, Conveyance or Sales

- LEGEND**
- Existing Iron Pipe (EIP)
 - New Iron Pipe (NIP)
 - Property Line
 - - - Adjoiner's Property Line
 - - - Right of Way Line
 - ⊙ Calculated Point (CP)
 - ⊙ Sanitary Sewer Manhole (SSMH)
 - Overhead Utility Lines
 - Utility Pole (with Guy Wire)



N.C. Hwy. 119
(N. First Street) 60' Public RW

(76)
PIN: 9816904009
Zoning: R-12
Land Use: Single Family

(75)
Section One
Forest Ridge Subdivision
P.B. 21 Pg. 72
PIN: 9815994978
Zoning: R-12
Land Use: Single Family

(74)
PIN: 9815995825
Zoning: R-12
Land Use: Single Family

Open Space
Phase One

Open Space to be
Owned by the HOA
and platted as Permanently
Reserved

Final Plat
Sheet 4 of 5
N. First Street Townes
Right of Way Dedication, Phase Line,
and Phase One Townhome Blocks
City of Mebane
Melville Township, Alamance County, North Carolina
J. Eric Miles L-4498
Firm License Number C - 664

GRAPHIC SCALE: 0 25 50 (IN FEET)

BOSWELL SURVEYORS, INC. Date: 01/29/2024
505 East Davis Street
Burlington, NC 27215
336.227.8723 (phone)
336.222.9917 (fax)
boswellsurveyors.com

Scale: 1" = 50'
Drawn By: JEM
Job No.: 24-001-200

Line Tables are for Sheet 2, 3, and 4

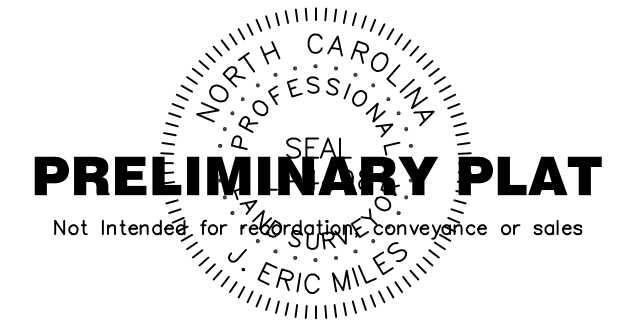
Curve	Chord Bearing	Chord	Radius	Length
C1	S 18°09'52" E	231.71'	850.67'	232.43'
C2	S 05°48'35" E	103.64'	640.76'	103.75'
C3	S 08°23'02" W	194.60'	573.33'	195.55'
C4	S 06°09'42" W	252.92'	590.22'	254.89'
C5	S 16°01'00" W	35.38'	25.00'	39.31'
C6	S 66°25'51" W	4.68'	25.00'	4.68'
C7	N 68°34'16" W	31.89'	25.00'	34.58'
C8	N 32°17'26" W	20.45'	175.00'	20.46'
C9	N 35°59'19" W	2.13'	175.00'	2.13'
C10	S 73°52'32" E	35.39'	25.00'	39.32'
C11	N 16°03'41" E	35.36'	25.00'	39.27'
C12	N 28°14'42" W	18.82'	775.00'	18.82'
C13	N 27°08'54" W	10.85'	775.00'	10.85'
C14	N 21°20'31" W	146.01'	775.00'	146.23'
C15	N 15°46'25" W	4.41'	775.00'	4.41'
C16	N 15°00'33" W	8.10'	386.14'	8.10'
C17	N 06°31'02" W	106.03'	386.14'	106.36'
C18	N 01°27'10" E	1.07'	386.14'	1.07'
C19	N 02°23'36" E	11.61'	386.14'	11.61'
C20	N 42°00'45" W	29.13'	20.50'	32.39'
C21	N 87°52'49" W	12.05'	575.00'	12.05'
C22	S 88°12'22" W	66.46'	575.00'	66.50'
C23	S 84°32'25" W	7.09'	575.00'	7.09'
C24	S 36°43'12" W	36.84'	25.00'	41.42'
C25	S 49°06'17" E	36.39'	25.00'	40.76'
C26	N 84°26'27" E	5.54'	625.00'	5.54'
C27	S 88°46'23" E	142.20'	625.00'	142.51'
C28	S 82°03'53" E	3.85'	625.00'	3.85'
C29	S 81°19'28" E	12.31'	625.00'	12.31'
C30	S 80°35'02" E	3.85'	625.00'	3.85'
C31	S 74°47'55" E	122.17'	625.00'	122.37'
C32	S 66°41'28" E	54.50'	625.00'	54.51'
C33	N 71°00'48" W	136.58'	575.00'	136.90'
C34	S 52°06'19" W	31.44'	20.50'	35.82'
C35	S 06°22'48" E	98.49'	336.12'	98.84'
C36	S 15°12'27" E	4.73'	336.12'	4.73'
C37	S 21°12'10" E	141.30'	725.00'	141.52'
C38	S 27°44'57" E	24.15'	725.00'	24.15'
C39	S 28°49'19" E	3.00'	725.00'	3.00'
C40	S 32°38'20" E	16.13'	125.00'	16.14'
C41	N 34°40'19" E	44.45'	50.00'	46.06'
C42	N 14°42'51" E	16.58'	74.00'	16.62'
C43	N 03°08'41" W	41.14'	50.00'	42.40'
C44	N 53°55'09" W	42.43'	50.00'	43.82'
C45	N 72°35'21" W	16.59'	74.00'	16.62'
C46	S 87°27'17" W	44.45'	50.00'	46.06'

Line	Bearing	Distance
L1	N 75°37'07" E	25.08'
L2	N 23°04'45" E	152.64'
L3	N 25°48'27" E	92.67'
L4	N 02°18'57" W	3.01'
L5	N 29°02'16" W	6.47'
L6	N 60°09'39" W	13.20'
L7	N 62°36'35" W	22.50'
L8	N 60°43'02" W	31.33'
L9	N 48°14'32" W	37.86'
L10	N 46°25'23" W	28.78'
L11	N 33°20'37" W	13.15'
L12	N 60°11'34" W	49.66'
L13	N 29°06'54" W	32.02'
L14	N 12°39'07" W	69.16'
L15	N 01°02'22" E	27.46'
L16	N 09°02'09" E	30.86'
L17	N 03°20'18" W	40.42'
L18	N 18°41'03" W	46.72'
L19	N 24°36'15" W	126.67'
L20	N 07°01'32" W	151.04'
L21	N 53°39'46" E	110.36'
L22	N 32°49'21" E	113.59'
L23	N 09°33'54" E	85.54'
L24	S 28°56'26" E	23.00'
L25	N 61°03'34" E	2.00'
L26	S 28°56'26" E	20.00'
L27	N 61°03'34" E	2.00'
L28	S 28°56'26" E	20.00'
L29	N 61°03'34" E	2.00'
L30	S 28°56'26" E	20.00'
L31	N 61°03'34" E	2.00'
L32	S 28°56'26" E	20.00'
L33	N 61°03'34" E	2.00'
L34	S 28°56'26" E	23.00'
L35	S 28°56'26" E	23.00'
L36	S 61°03'34" W	3.00'
L37	S 28°56'26" E	20.00'
L38	S 61°03'34" W	3.00'
L39	S 28°56'26" E	20.00'
L40	S 61°03'34" W	3.00'
L41	S 28°56'26" E	23.00'
L42	S 64°11'33" E	18.81'
L43	N 64°11'33" W	23.55'
L44	S 64°11'33" E	2.36'

Line	Bearing	Distance
E1	N 38°46'32" E	91.52'
E2	S 51°13'28" E	20.00'
E3	S 38°46'32" W	43.88'
E4	S 46°41'36" E	34.89'
E5	S 61°49'19" W	45.75'
E6	N 61°04'42" E	108.25'
E7	S 28°55'18" E	20.00'
E8	S 61°04'42" W	108.25'
E9	S 84°02'17" E	32.92'
E10	S 03°12'29" W	30.31'
E11	N 14°15'38" W	40.09'
E12	N 07°00'38" W	123.20'
E13	N 21°10'50" W	194.61'
E14	N 68°49'10" E	20.00'
E15	S 21°10'50" E	197.10'
E16	S 07°00'38" E	124.41'
E17	S 14°15'38" E	41.83'
E18	N 56°50'50" E	83.99'
E19	N 07°26'54" W	227.45'
E20	N 61°03'34" E	101.91'
E21	S 28°56'26" E	20.00'
E22	S 61°03'34" W	88.29'
E23	S 07°26'54" E	199.59'
E24	N 42°02'49" E	94.54'
E25	S 47°57'11" E	20.00'
E26	S 42°02'49" W	101.01'
E27	S 64°11'33" E	104.68'
E28	S 85°36'19" E	68.24'
E29	S 04°23'41" W	20.00'
E30	N 85°36'19" W	72.02'
E31	N 64°11'33" W	116.79'
E32	S 56°50'50" W	85.21'
E33	S 57°43'16" W	50.24'
E34	S 51°06'23" W	10.01'
E35	S 47°32'46" W	50.03'
E36	N 65°29'00" W	26.15'
E37	N 49°17'40" W	118.03'
E38	N 09°12'28" W	121.75'
E39	N 82°33'06" E	18.33'
E40	N 74°00'42" E	20.22'
E41	N 82°33'14" E	86.75'
E42	S 07°26'54" E	109.74'
E43	S 72°54'08" W	10.00'
E44	N 59°50'53" E	10.00'
E45	N 58°45'19" E	50.01'
E46	S 08°40'32" W	94.73'
E47	S 34°32'51" E	44.74'
E48	S 87°08'52" E	80.77'
E49	S 50°56'37" E	6.02'
E50	S 17°33'29" W	110.73'
E51	N 11°41'57" E	7.43'
E52	N 00°00'00" W	7.44'
E53	N 26°19'12" W	24.67'
E54	N 34°59'04" W	67.51'
E55	N 60°49'21" W	34.84'
E56	S 87°08'52" E	22.07'
E57	N 34°32'51" W	31.10'
E58	N 75°50'57" W	148.38'
E59	N 14°09'03" E	20.00'
E60	S 75°50'57" E	142.14'
E61	N 08°40'32" E	86.72'

Curve	Chord Bearing	Chord	Radius	Length
EC1	S 29°15'04" E	32.35'	47.20'	33.02'
EC2	N 42°06'10" W	32.26'	185.00'	32.30'
EC3	N 22°55'40" W	46.53'	185.00'	46.65'
EC4	S 69°02'45" E	41.32'	66.50'	42.02'
EC5	S 16°41'34" E	114.22'	101.84'	121.26'
EC6	S 60°25'26" W	59.86'	45.99'	65.18'
EC7	N 32°44'08" W	63.90'	46.64'	70.39'
EC8	N 05°50'59" E	9.07'	44.50'	9.09'
EC9	N 13°09'36" W	20.26'	44.50'	20.44'
EC10	N 30°39'08" W	9.59'	63.50'	9.60'
EC11	N 47°54'12" W	28.39'	63.50'	28.64'
EC12	N 25°40'12" E	56.08'	30.01'	72.43'
EC13	S 11°32'11" E	24.95'	175.00'	24.97'

Line	Bearing	Distance
SSE1	N 25°48'27" E	89.87'
SSE2	S 64°11'33" E	11.19'
SSE3	S 25°48'27" W	87.42'
SSE4	N 34°06'38" W	224.16'
SSE5	S 75°37'07" W	18.23'



Final Plat
Sheet 5 of 5
N. First Street Townes
Right of Way Dedication, Phase Line,
and Phase One Townhome Blocks

City of Mebane
Melville Township, Alamance County, North Carolina
J. Eric Miles L-4498
Firm License Number C - 664

	GRAPHIC SCALE (IN FEET)
	BOSWELL SURVEYORS, INC. Date: 01/29/2024
	505 East Davis Street Burlington, NC 27215 336.227.8723 (phone) 336.222.9917(fax) boswellsurveyors.com
	Scale: 1" = 40' Drawn By: JEM Job No.: 24-001-200



AGENDA ITEM #5E

SUB 24-01

Final Subdivision Plat
Oakwood, Phase 1A

REAPPROVAL

Presenter

Ashley Ownbey, Development Director

Applicant

Meritage Homes of the Carolinas, Inc.
13925 Ballantyne Corp. Pl., Ste. 300
Charlotte, NC 28277

Public Hearing

Yes No

Final Plat



Property

Oakwood Subdivision
Orange County GPINs
9825404628,
9825502531

Proposed Zoning

N/A

Current Zoning

R-8 (CD), R-10 (CD)

Size

+/-13.129 acres

Surrounding Zoning

R-8 (CD), HM, R-20,
R-8, R-6

Surrounding Land

Uses

Residential, Vacant,
Industrial

Utilities

Extended at
developer's expense.

Floodplain

No

Watershed

No

City Limits

Yes

Summary

Meritage Homes of the Carolinas, Inc. is requesting approval of the Final Plat for Phase 1A of the Oakwood Subdivision (approved for rezoning by the City Council on 04/07/2021). The final plat will include a total area of +/- 13.129 acres featuring 9 townhome blocks, 11 single-family lots, +/- 4.35 acres of open space, and +/-3.009 acres of dedicated right of way.

The Technical Review Committee (TRC) has reviewed the final plat and the applicant has revised the plat to reflect comments. All infrastructure must be completed and approved to meet the City of Mebane specifications. All infrastructure not completed shall be bonded or a letter of credit provided prior to recordation.

This major subdivision plat was originally approved by the City Council at its January 8, 2024, meeting and reapproved at its April 8, 2024, meeting.

Financial Impact

The developer has extended utilities at his own expense.

Recommendation

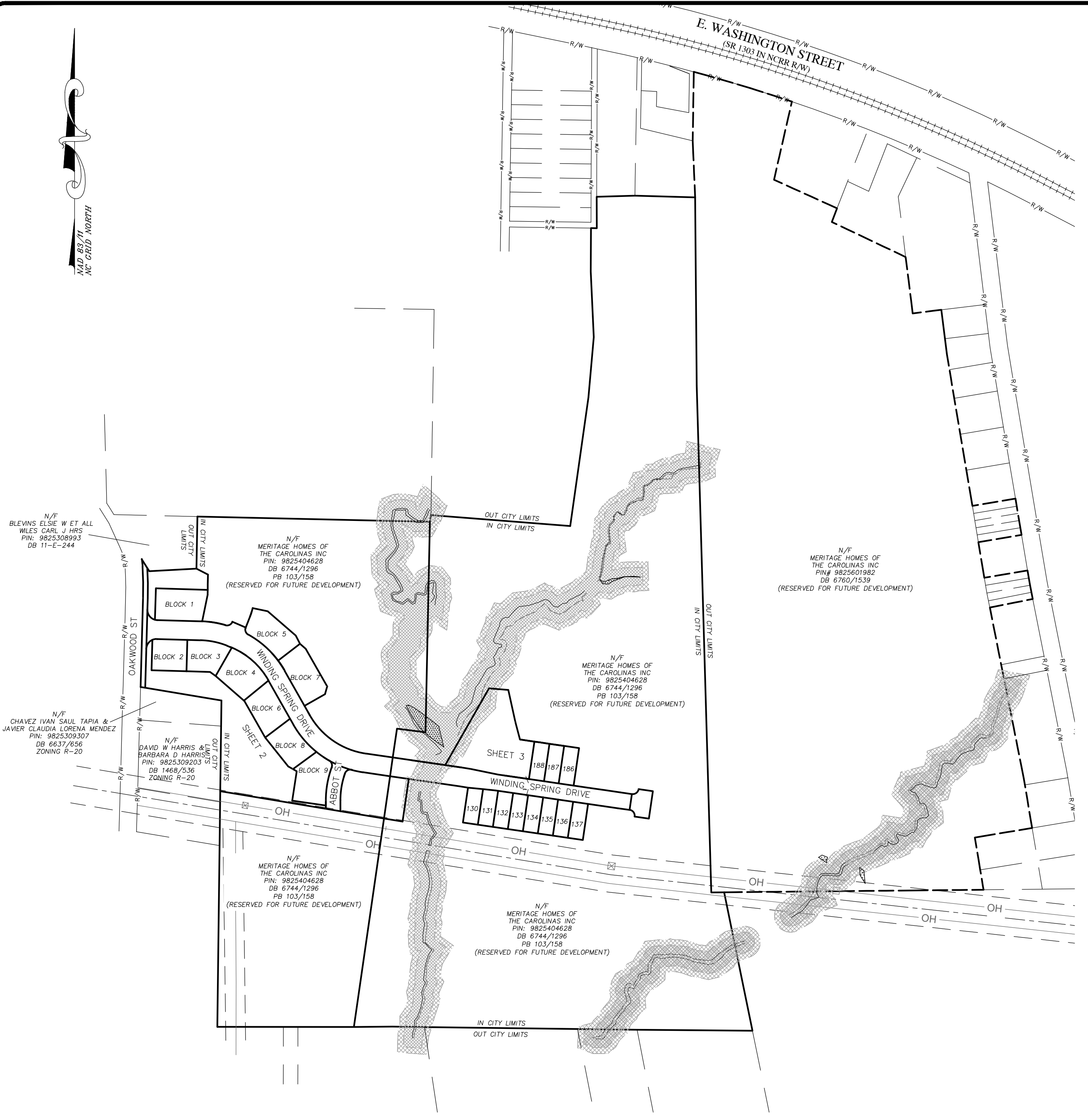
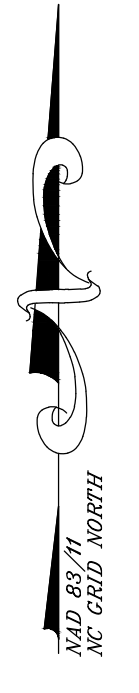
Staff recommends approval of the final plat.

Suggested Motion

Motion to approve the final plat as presented.

Attachments

1. Final Plat



CERTIFICATE OF OWNERSHIP AND DEDICATION

THIS CERTIFIES THAT THE UNDERSIGNED IS (ARE) THE OWNER(S) OF THE PROPERTY SHOWN ON THIS MAP HAVING ACQUIRED TITLE TO IT BY DEED(S) RECORDED IN THE ALAMANCE/ORANGE COUNTY, NORTH CAROLINA REGISTER OF DEEDS OTHERWISE AS SHOWN BELOW AND THAT BY SUBMISSION OF THIS PLAT OR MAP FOR APPROVAL, I/WE DO DEDICATE TO THE CITY OF MEBANE FOR PUBLIC USE ALL STREETS, EASEMENTS, RIGHTS-OF-WAY AND PARKS SHOWN THEREON FOR ALL LAWFUL PURPOSES TO WHICH THE CITY MAY DEVOTE OR ALLOW THE SAME TO BE USED AND UPON ACCEPTANCE THEREOF AND IN ACCORDANCE WITH ALL CITY POLICES, ORDINANCES AND REGULATIONS OR CONDITIONS OF THE CITY OF MEBANE FOR THE BENEFIT OF THE PUBLIC, THIS DEDICATION SHALL BE IRREVOCABLE. ALSO, ALL PRIVATE STREETS SHOWN ON THIS MAP, IF ANY, ARE TO BE AVAILABLE FOR PUBLIC USE.

PROVIDED, HOWEVER, THE "COMMON ELEMENTS" SHOWN HEREON EXPRESSLY ARE NOT DEDICATED HEREBY FOR USE BY THE GENERAL PUBLIC, BUT ARE TO BE CONVEYED BY MERITAGE HOMES OF THE CAROLINAS TO OAKWOOD HOMEOWNERS ASSOCIATION, INC. FOR THE USE AND ENJOYMENT OF THE MEMBERS THEREOF PURSUANT TO THE TERMS OF THAT CERTAIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR THE MEADOWS, RECORDED IN BOOK 6307, PAGE 212-248, ORANGE COUNTY REGISTRY, THE TERMS AND PROVISIONS OF WHICH ARE INCORPORATED HEREIN BY THIS REFERENCE.

EXCEPT AS SPECIFICALLY STATED OR SHOWN, THIS SURVEY DOES NOT REPORT ANY OF THE FOLLOWING: EASEMENTS, OTHER THAN THOSE VISIBLE DURING FIELD EXAMINATION, BUILDING SETBACKS, RESTRICTIVE COVENANTS, ZONING OR LAND USE REGULATIONS AND ANY FACTS WHICH A TITLE SEARCH MAY DISCLOSE.

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NOTE "A" SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED DURING THIS SURVEY. ALL BUILDINGS, SURFACE AND SUBSURFACE IMPROVEMENTS ON AND ADJACENT TO THE SITE ARE NOT NECESSARILY SHOWN HEREON. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND CONTAINERS WHICH MAY AFFECT THE USE OF THIS TRACT.

NOTE "B" THE LOCATION OF UNDERGROUND UTILITIES AS SHOWN ARE BASED ON VISIBLE EVIDENCE AND DRAWINGS PROVIDED TO THE SURVEYOR. LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON, AND ADDITIONAL BURIED UTILITIES MAY EXIST. CONTACT THE APPROPRIATE UTILITY COMPANIES FOR INFORMATION REGARDING BURIED UTILITIES.

NOTE "C" DISTANCES ARE HORIZONTAL GROUND AND AREA BY COORDINATE COMPUTATION.

NOTE "D" THIS SURVEY WAS DONE WITHOUT A TITLE SEARCH AND IS BASED ON REFERENCED INFORMATION. THERE MAY EXIST OTHER DOCUMENTS OF RECORD WHICH COULD AFFECT THIS PROPERTY.

NOTE "E" EXCEPT AS SPECIFICALLY STATED OR SHOWN, THIS SURVEY DOES NOT REPORT ANY OF THE FOLLOWING: EASEMENTS, OTHER THAN THOSE VISIBLE DURING FIELD EXAMINATION, BUILDING SETBACKS, RESTRICTIVE COVENANTS, ZONING OR LAND USE REGULATIONS AND ANY FACTS WHICH A TITLE SEARCH MAY DISCLOSE.

NOTE "F" METLANDS, JURISDICTIONAL WATERS OR OTHER CONDITIONS WHICH MAY BE REGULATED BY FEDERAL OR STATE OR LOCAL AGENCIES WERE NOT INVESTIGATED DURING THIS SURVEY. RIPARIAN BUFFERS AND OTHER RESTRICTIONS ON DEVELOPMENT MAY BE REQUIRED.

NOTE "G" THIS PROPERTY IS NOT LOCATED IN A HAZARDOUS FLOOD ZONE AS SHOWN ON FEMA FIRM NUMBER 370982400, EFFECTIVE DATE 11/17/2015. FLOOD ZONES OR BASE FLOOD ELEVATIONS WERE NOT INVESTIGATED DURING THIS SURVEY.

NOTE "H" NO NCGS MONUMENTS WERE FOUND WITHIN 2000' OF THIS SITE.

NOTE "I" SEE PLAT "BOUNDARY SURVEY FOR LANDS OF THE ESTATE OF VIRGINIA CLAYTON LONG & THE FIRST BAPTIST CHURCH OF MEBANE" BY STEPHEN D. PLUCKETT, PLS., DATED APRIL 4, 2008, AND RECORDED IN PB 103/758, ORANGE COUNTY.

NOTE "J" SEE PLAT "BOUNDARY SURVEY FOR LOUISE HOLT HEATH" BY AM MORROW, PLS., DATED JULY 8, 2002, AND RECORDED IN PB 90/182, ORANGE COUNTY.

NOTE "K" THIS PROPERTY IS WITHIN THE CAPE FEAR RIVER BASIN.

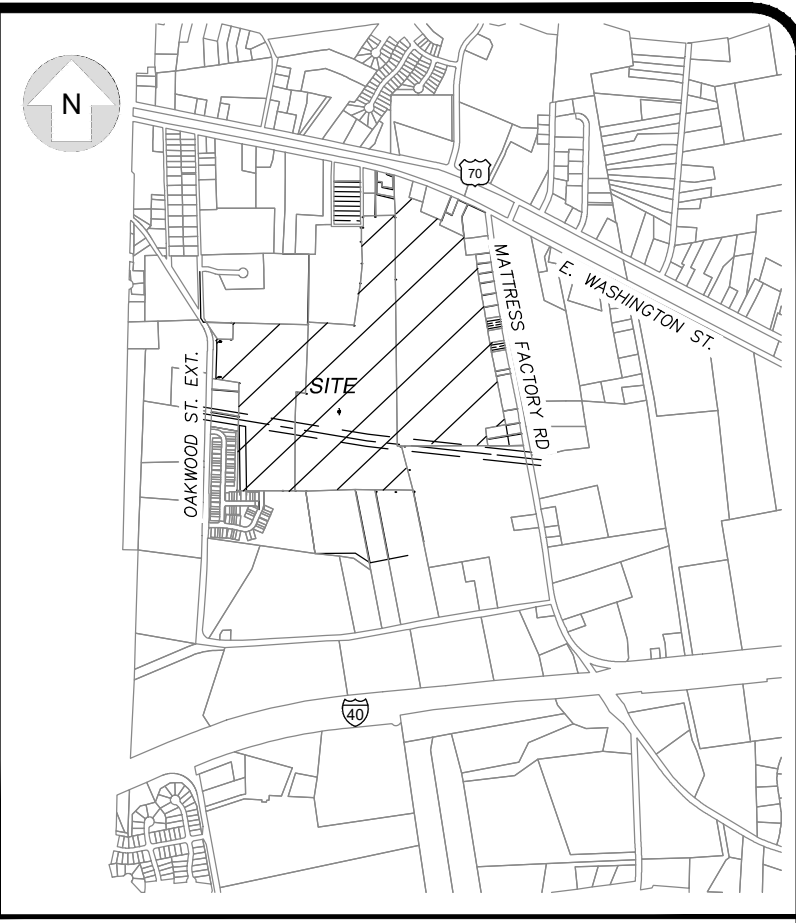
NOTE "L" ZONING: R-8-CD (TOWNHOMES) BUILDING FRONT SETBACK: 20 FT BUILDING SIDE SETBACK: 15 FT BUILDING SIDE STREET SETBACK: 15 FT BUILDING REAR SETBACK: 15 FT

NOTE "M" ZONING: R-10-CD (SINGLE-FAMILY) BUILDING FRONT SETBACK: 25 FT BUILDING SIDE SETBACK: 2 FT BUILDING SIDE STREET SETBACK: 13 FT BUILDING REAR SETBACK: 20 FT

NOTE "N" THE MULTISENSE PATH IS TO BE CONSTRUCTED TO CITY OF MEBANE STANDARDS AND COVERED BY A PUBLIC EASEMENT. CITY OF MEBANE ACCEPTANCE OF THE MULTISENSE PATH AND ITS CONTINUAL MAINTENANCE WILL NOT BEGIN UNTIL ALL WORK IS DEEMED COMPLETE IN ALL PHASES SUCH THAT THE MULTISENSE PATH FORMS A COMPLETED NETWORK (WITH THE INTERNAL ROADWAY AND SIDEWALK SYSTEM AND BEING EXTENDED TO EXISTING PERIMETER STATE ROADS AND OTHER PROPERTIES AS SHOWN AND APPROVED ON THE PRELIMINARY PLAT ALL SUBJECT TO MEBANE APPROVED REVISIONS).

NOTE "O" SEE ORANGE COUNTY PLANNING & INSPECTIONS DEPARTMENT FOR APPROVED SOIL AND EROSION CONTROL PLAN.

NOTE "P" POSITIVE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES IN SWALES AND AWAY FROM BUILDING.



BOOK NUMBER _____ PAGE NUMBER _____

SIGNATURE(S) _____

_____ COUNTY, NORTH CAROLINA

I CERTIFY THAT THE FOLLOWING PERSON(S) PERSONALLY APPEARED BEFORE ME THIS DAY, EACH ACKNOWLEDGING TO ME THAT HE OR SHE SIGNED THE FOREGOING DOCUMENT:

NAME(S) OF PRINCIPAL(S) _____

DATE: _____

OFFICIAL SIGNATURE OF NOTARY _____

NAME _____ NOTARY PUBLIC NOTARY'S PRINTED

MY COMMISSION EXPIRES: _____

CERTIFICATE OF FINAL MAJOR SUBDIVISION PLAT APPROVAL AND ACCEPTANCE OF DEDICATION

I, THE CITY CLERK OF MEBANE, NORTH CAROLINA, DO CERTIFY THAT THE CITY OF MEBANE APPROVED THIS PLAT OR MAP AND ACCEPTED THE DEDICATION OF THE STREETS, EASEMENTS, RIGHT-OF-WAY AND PUBLIC PARKS SHOWN THEREON, BUT ASSUMES NO RESPONSIBILITY TO OPEN OR MAINTAIN THE SAME, UNLESS IN THE OPINION OF THE CITY COUNCIL OF THE CITY OF MEBANE IT IS IN THE PUBLIC INTEREST TO DO SO.

DATE _____ CITY CLERK _____

STATE OF NORTH CAROLINA ORANGE COUNTY

REVIEW OFFICER OF ORANGE COUNTY, CERTIFY THAT THIS MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING FOR WHICH THE REVIEW OFFICER HAS RESPONSIBILITY AS PROVIDED BY LAW.

REVIEW OFFICER _____ DATE OF CERTIFICATION _____

ORANGE COUNTY LAND RECORDS/O/S

CERTIFICATE OF OF SURVEY AND ACCURACY

I, BRANTLEY W. WELLS, PLS., L-4544, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN BOOK XXXX, PAGE XXXX, ETC.) (OTHER) THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION FOUND IN BOOK _____ PAGE _____ THAT THE RATIO OF PRECISION OR POSITIONAL ACCURACY AS CALCULATED IS 1:10,000; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH NCGS 47-30 AS AMENDED, WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER AND SEAL THIS XXXX DAY OF JANUARY, A.D., 2024.

SURVEYOR _____ L-4544
REGISTRATION NUMBER _____

CERTIFICATE OF PURPOSE OF PLAT

THIS SURVEY CREATES A SUBDIVISION OF LAND WITHIN THE AREA OF A COUNTY OR MUNICIPALITY THAT HAS AN ORDINANCE THAT REGULATES PARCELS OF LAND.

SURVEYOR _____ 01/03/24
DATE _____

I HEREBY CERTIFY THAT THIS PLAT IS OF THE FOLLOWING TYPE:

G.S. 47-30 (F)(11)(A). THIS SURVEY CREATES A SUBDIVISION OF LAND WITHIN THE AREA OF A COUNTY OR MUNICIPALITY THAT HAS AN ORDINANCE THAT REGULATES PARCELS OF LAND.

I, BRANTLEY W. WELLS, PLS., L-4544, CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN BOOK/PAGE; (AS NOTED HEREON)) OR OTHER REFERENCE SOURCE; (AS NOTED HEREON); THAT THE BOUNDARIES NOT SURVEYED ARE INDICATED IN A BROKEN LINE TYPE AS DRAWN FROM INFORMATION IN BOOK/PAGE; (AS NOTED HEREON) OR OTHER REFERENCE SOURCE; (AS NOTED HEREON); THAT THE RATIO OF PRECISION OR POSITIONAL ACCURACY IS 1:10,000+; AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA (21 NCAC 56.1600). THIS MAP WAS DRAWN IN ACCORDANCE WITH G.S. 47.30 AS AMENDED, WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS XX DAY OF JANUARY, 2024.

PRELIMINARY PLAT FOR REVIEW 01/03/2024

PROFESSIONAL LAND SURVEYOR LIC. NUMBER L-4544
SUMMIT DESIGN AND ENGINEERING SERVICES
LICENSE NUMBER P-0339

SYMBOL LEGEND table with various utility and site symbols.

LINE LEGEND table with line styles for water, electric, gas, etc.

SITE SUMMARY ORANGE CO. PARCEL PB 103/158 table with columns for description, units, and total acres.

SITE SUMMARY ORANGE CO. PARCEL PB 90/182 table with columns for description, units, and total acres.

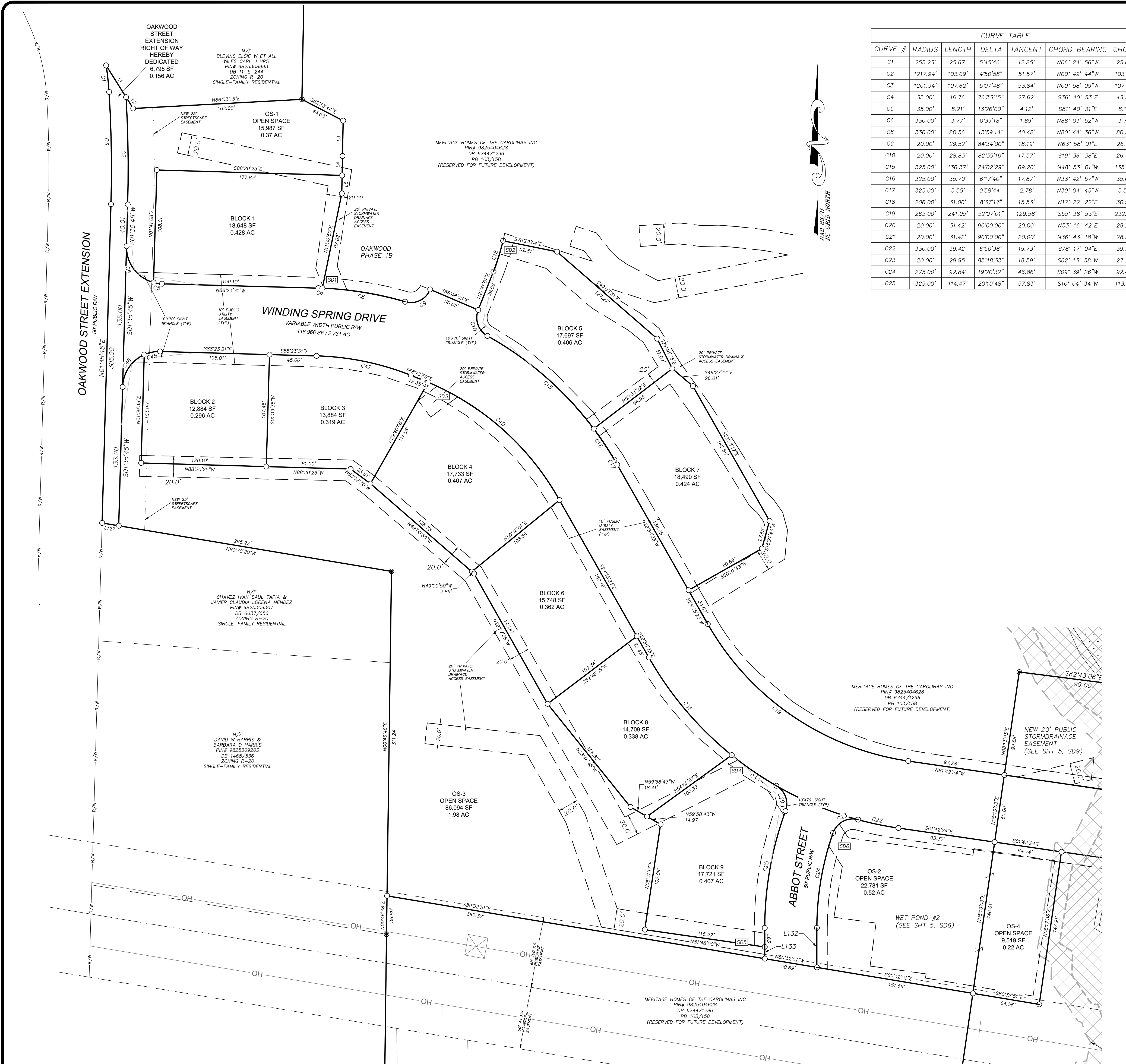
TOTAL SITE SUMMARY table with columns for description, units, and total acres.

REVISIONS table with columns for number, description, date, and by.

FINAL MAJOR SUBDIVISION PLAT OF OAKWOOD PHASE 1A. CITY OF MEBANE, ORANGE CO., NORTH CAROLINA. PROPERTY AS DESCRIBED IN DB 6744/1296 SHOWN HEREON. STANDING IN THE NAME OF MERITAGE HOMES OF THE CAROLINAS.

SUMMIT DESIGN AND ENGINEERING SERVICES logo and contact information.

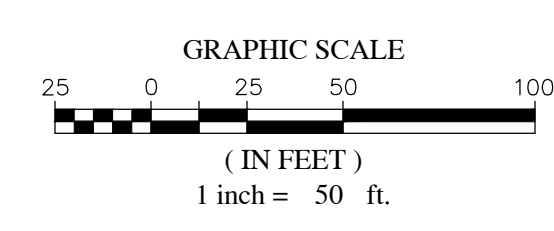
PROJECT ENGINEER, SURVEY PROJECT MGR: RAH, DRAWN BY: JJRAH, SURVEYED BY: TD, CHECKED BY: WHM. PROJECT NO. 19-0139, DRAWING NAME 19-0139_PH1A, SHEET 1 OF 5.



CURVE #	RADIUS	LENGTH	DELTA	TANGENT	CHORD BEARING	CHORD
C1	255.23'	25.67'	5°45'46"	12.85'	N06°24'56"W	25.66'
C2	1217.94'	103.09'	4°50'58"	51.57'	N00°49'44"W	103.06'
C3	1201.94'	107.62'	5°07'48"	53.84'	N00°58'09"W	107.58'
C4	35.00'	46.76'	76°33'15"	27.62'	S36°40'53"E	43.36'
C5	35.00'	8.21'	13°26'00"	4.12'	S81°40'31"E	8.19'
C6	330.00'	3.77'	0°39'18"	1.89'	N88°03'52"W	3.77'
C8	330.00'	80.56'	13°59'14"	40.48'	N80°44'36"W	80.36'
C9	20.00'	29.52'	84°34'00"	18.19'	N63°58'01"E	26.91'
C10	20.00'	28.83'	82°35'16"	17.57'	S19°36'38"E	26.40'
C15	325.00'	136.37'	24°02'29"	69.20'	N48°53'01"W	135.37'
C16	325.00'	35.70'	6°17'40"	17.87'	N33°42'57"W	35.69'
C17	325.00'	5.55'	0°58'44"	2.78'	N30°04'45"W	5.55'
C18	206.00'	31.00'	8°37'17"	15.53'	N17°22'22"E	30.97'
C19	265.00'	241.05'	52°07'01"	129.58'	S55°38'53"E	232.82'
C20	20.00'	31.42'	90°00'00"	20.00'	N53°16'42"E	28.28'
C21	20.00'	31.42'	90°00'00"	20.00'	N36°43'18"W	28.28'
C22	330.00'	39.42'	6°50'38"	19.73'	S78°17'04"E	39.39'
C23	20.00'	29.95'	85°48'33"	18.59'	S62°13'58"W	27.23'
C24	275.00'	92.84'	19°20'32"	46.86'	S09°39'26"W	92.40'
C25	325.00'	114.47'	20°10'48"	57.83'	S10°04'34"W	113.88'

CURVE #	RADIUS	LENGTH	DELTA	TANGENT	CHORD BEARING	CHORD
C29	20.00'	28.00'	80°12'59"	16.85'	N19°57'47"W	25.77'
C30	330.00'	51.98'	9°01'32"	26.05'	S55°33'31"E	51.93'
C31	330.00'	123.58'	21°27'22"	62.52'	S40°19'04"E	122.86'
C40	260.00'	172.28'	37°57'29"	89.44'	N48°05'46"W	169.15'
C41	260.00'	5.63'	1°14'27"	2.82'	N67°41'46"W	5.63'
C42	265.00'	92.85'	20°04'32"	46.91'	N78°21'15"W	92.38'
C45	35.00'	15.60'	25°32'39"	7.93'	S78°50'08"W	15.48'
C46	35.00'	39.38'	64°28'03"	22.07'	S33°49'46"W	37.34'

Line #	Length	Direction
L1	36.004'	S32°12'26.28"E
L2	12.836'	N32°12'26.28"W
L3	33.820'	N01°05'46.72"E
L4	18.557'	N01°05'46.72"E
L5	17.417'	S01°05'46.72"W
L55	31.154'	N81°12'35.28"W
L56	19.758'	N81°43'17.60"W
L57	32.242'	N81°43'17.60"W
L58	40.000'	S81°43'17.60"E
L59	40.000'	N81°43'17.60"W
L60	8.820'	S81°43'17.60"E
L61	43.221'	N84°13'12.26"W
L62	30.872'	S81°12'35.28"E
L63	18.225'	S00°00'50.35"E
L127	16.153'	N80°30'20.14"W
L128	9.177'	S10°52'34.53"E
L129	19.963'	S88°43'52.70"E
L130	23.257'	N08°46'16.39"E
L131	66.658'	N85°21'01.73"W
L132	37.890'	N00°00'50.35"W
L133	11.328'	S00°00'50.35"E



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REVISIONS DATE BY

**FINAL MAJOR SUBDIVISION PLAT OF
OAKWOOD PHASE 1A**

CITY OF MEBANE, ORANGE CO., NORTH CAROLINA
PROPERTY AS DESCRIBED IN DB 6744/1296 SHOWN HEREON
STANDING IN THE NAME OF
MERITAGE HOMES OF THE CAROLINAS

SUMMIT
DESIGN AND ENGINEERING SERVICES

License #: P-0339
320 Executive Court
Hillsborough, NC 27278-8551
Voice: (919) 732-3883 Fax: (919) 732-6676
www.summitde.com

PROJECT ENGINEER	
SURVEY PROJECT MGR: RAH	
DRAWN BY: JJ/RAH	
SURVEYED BY: TD	
CHECKED BY: WHM	

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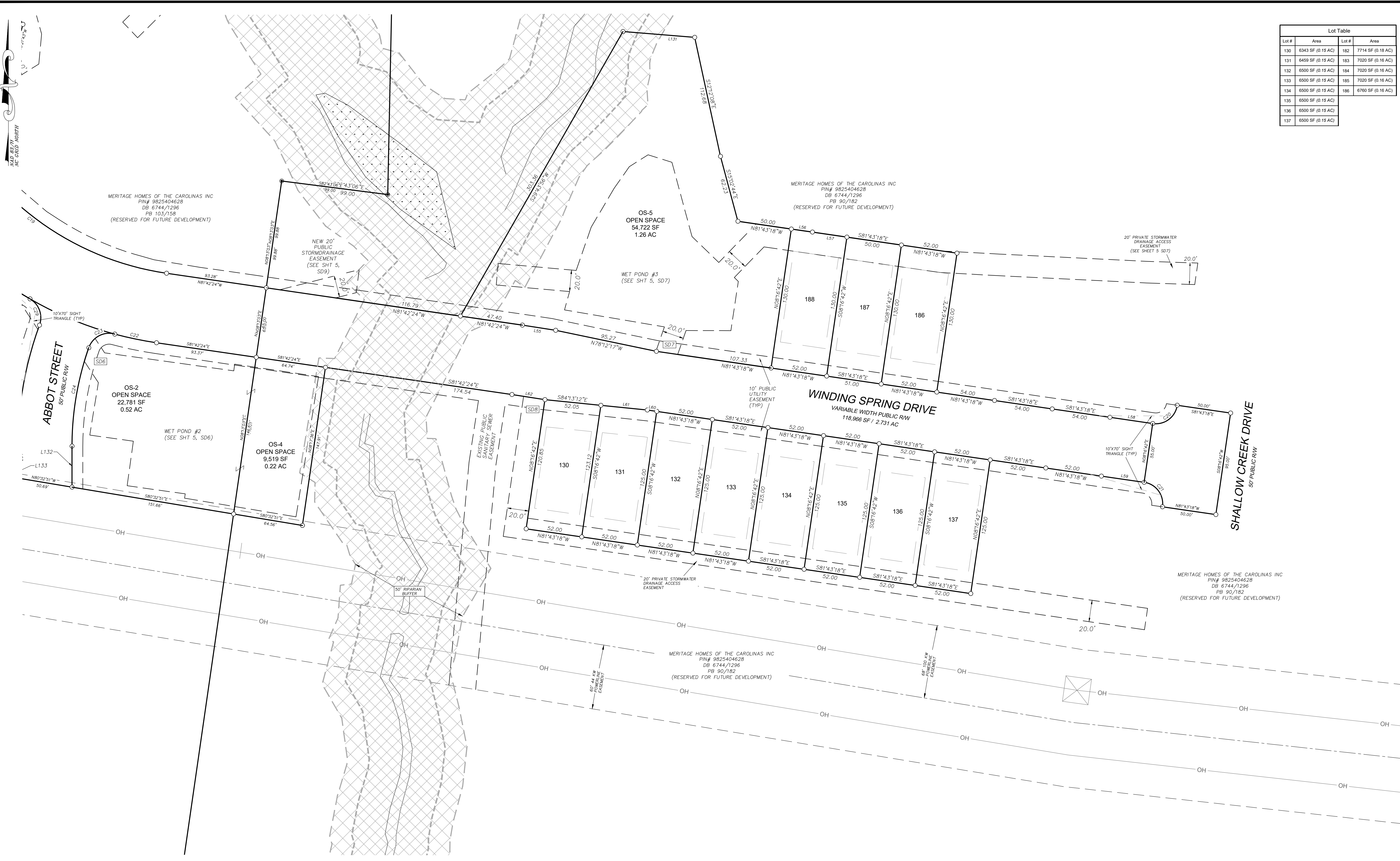
PROJECT NO.
19-0139
DRAWING NAME
19-0139_PH1A

SHEET 2 OF 5

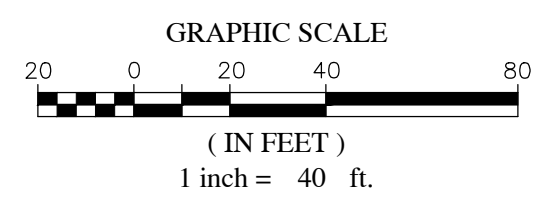
PRELIMINARY PLAT
FOR REVIEW 01/03/2024

14/2023/19-0139-01/03/2024/Summit Design and Engineering Services, Inc. 19-0139-01/03/2024

Lot Table		
Lot #	Area	Area
130	6343 SF (0.15 AC)	182 7714 SF (0.18 AC)
131	6459 SF (0.15 AC)	183 7020 SF (0.16 AC)
132	6500 SF (0.15 AC)	184 7020 SF (0.16 AC)
133	6500 SF (0.15 AC)	185 7020 SF (0.16 AC)
134	6500 SF (0.15 AC)	186 6760 SF (0.16 AC)
135	6500 SF (0.15 AC)	
136	6500 SF (0.15 AC)	
137	6500 SF (0.15 AC)	



PRELIMINARY PLAT
FOR REVIEW 01/03/2024



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	REVISIONS	DATE	BY

FINAL MAJOR SUBDIVISION PLAT OF
OAKWOOD PHASE 1A
 CITY OF MEBANE, ORANGE CO., NORTH CAROLINA
 PROPERTY AS DESCRIBED IN DB 6744/1296 SHOWN HEREON
 STANDING IN THE NAME OF
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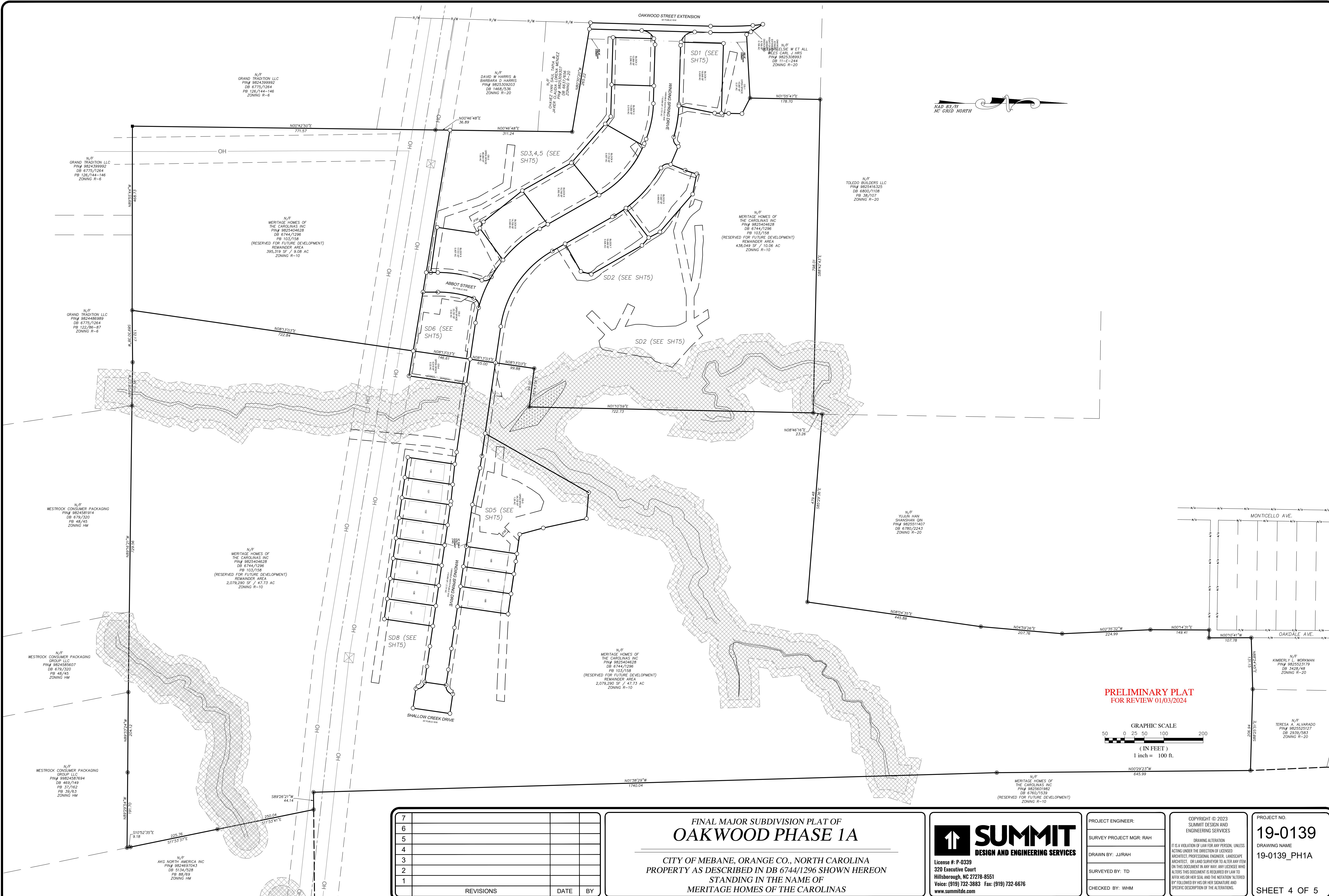
PROJECT ENGINEER:	
SURVEY PROJECT MGR: RAH	
DRAWN BY: JJRAH	
SURVEYED BY: TD	
CHECKED BY: WHM	

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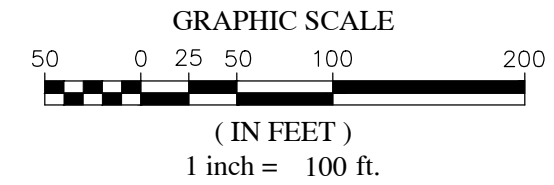
PROJECT NO.
19-0139
 DRAWING NAME
19-0139_PH1A
 SHEET 3 OF 5

I:\2019\190139\190139.dwg SUMMIT DESIGN AND ENGINEERING SERVICES SHEET 3 OF 5 1/3/2024 10:52 AM

1:2025/01/03/10:45 AM Summit Design and Engineering Services, Inc. 320 Executive Court Hillsborough, NC 27278-8551

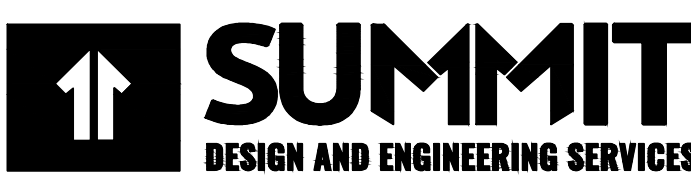


**PRELIMINARY PLAT
FOR REVIEW 01/03/2024**



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	REVISIONS	DATE	BY

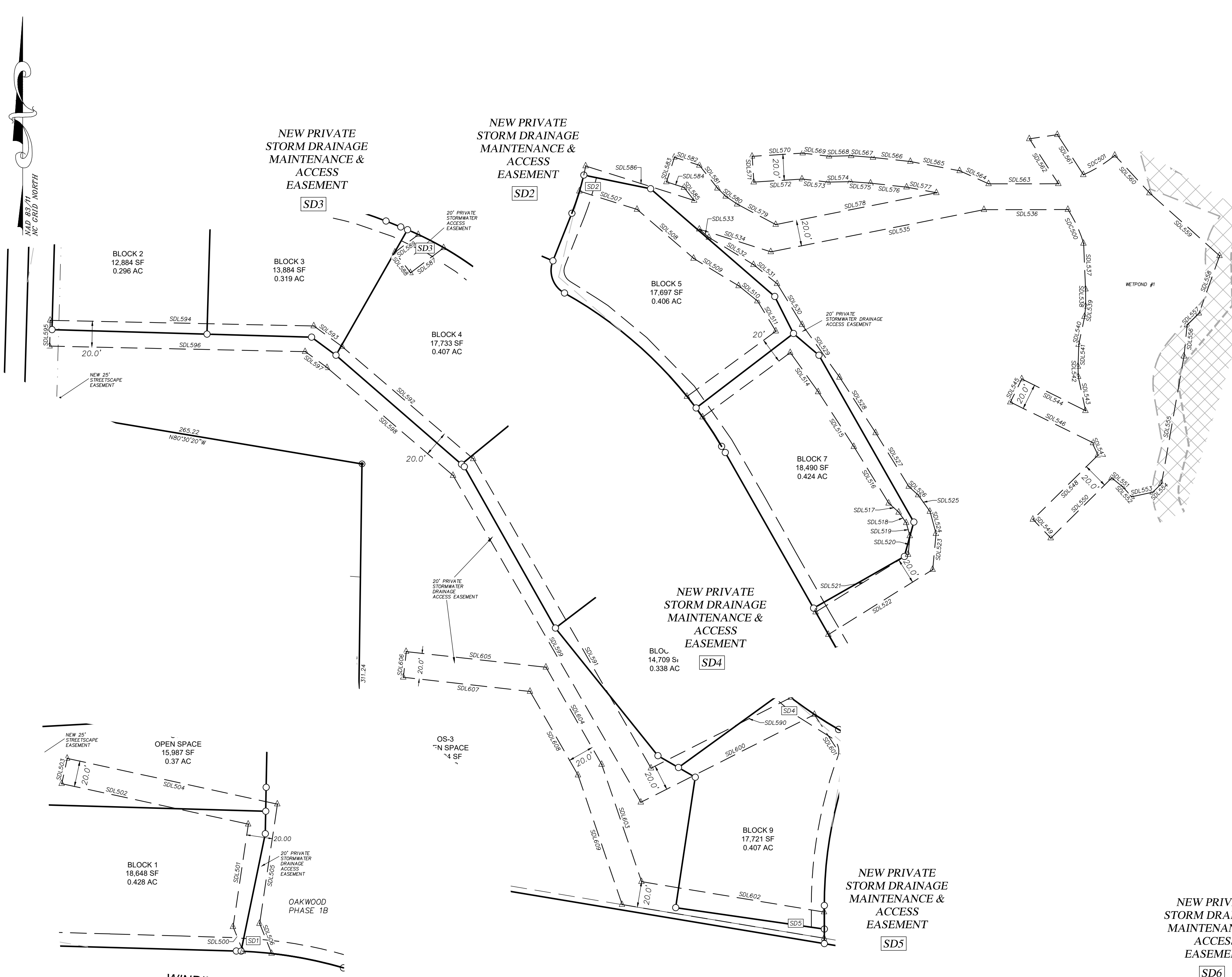
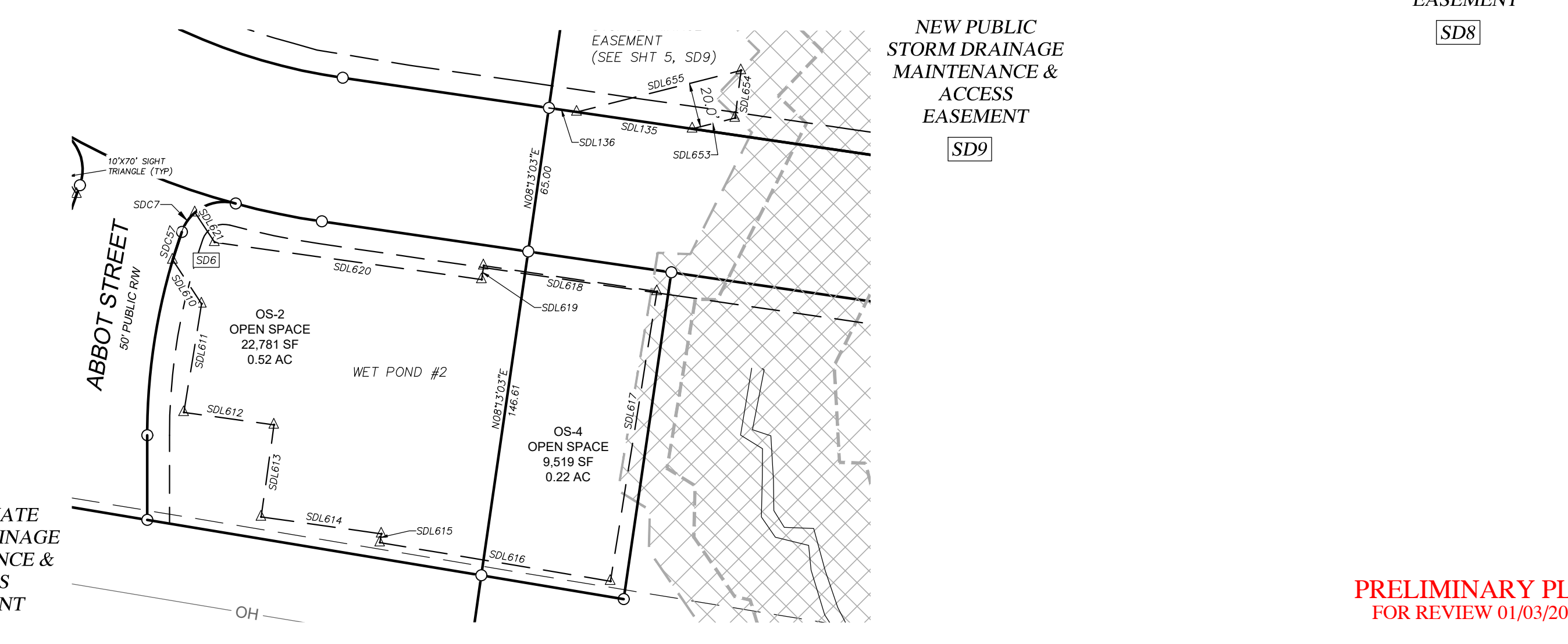
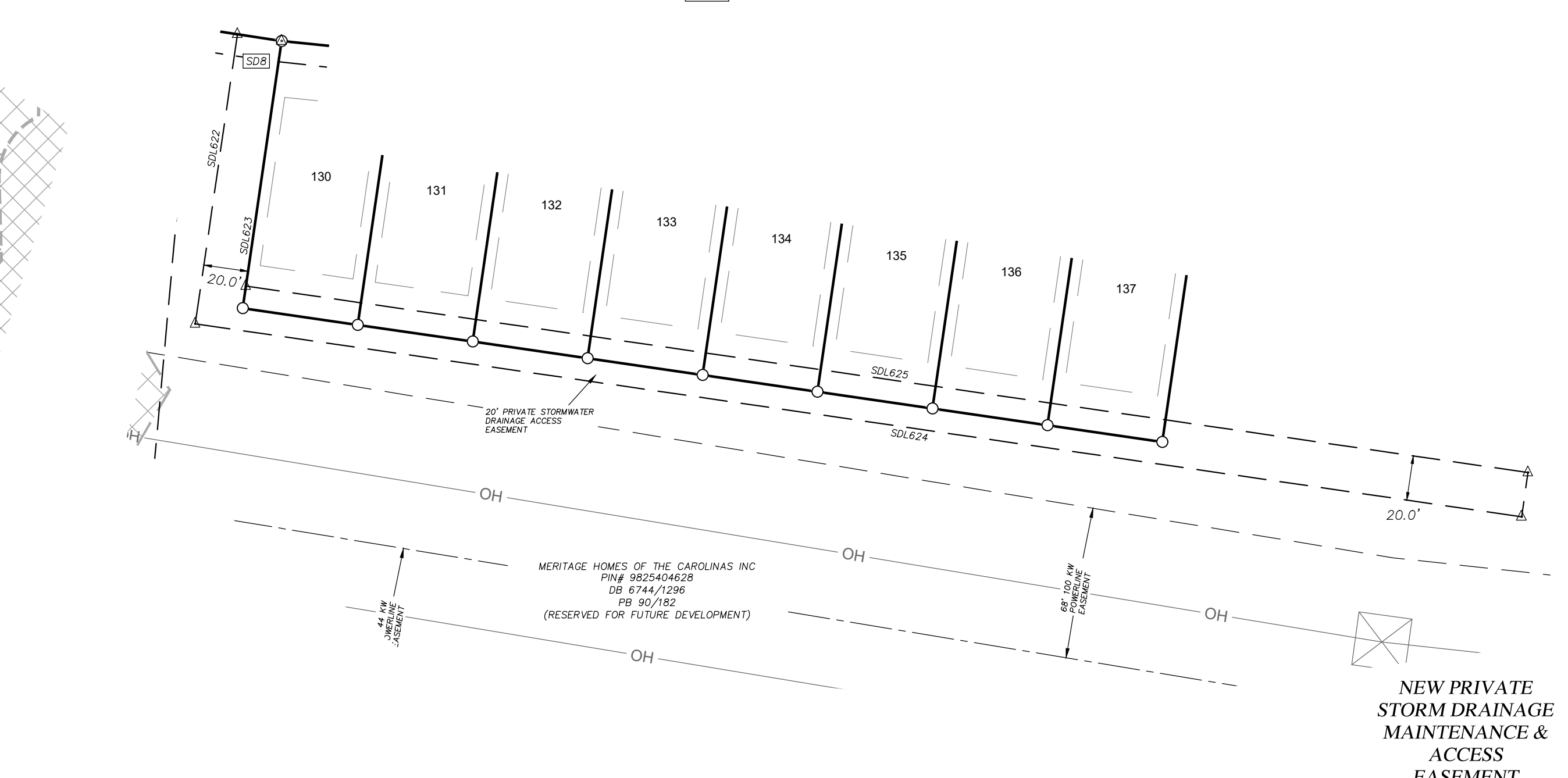
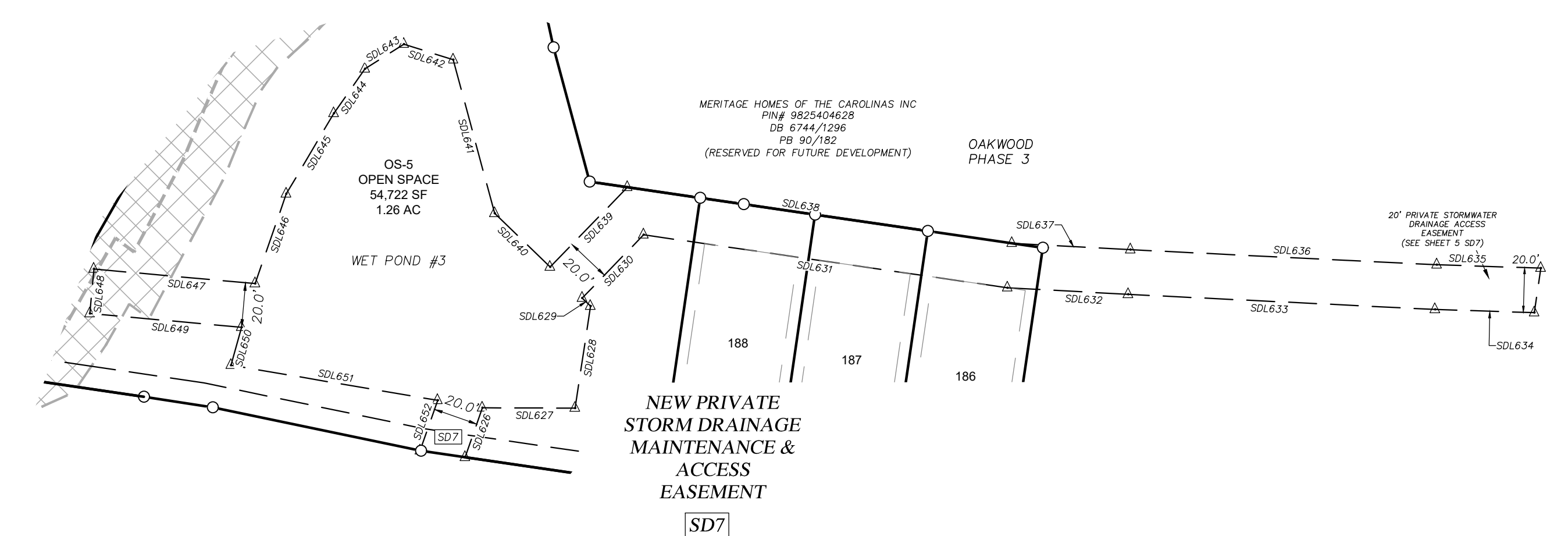
**FINAL MAJOR SUBDIVISION PLAT OF
 OAKWOOD PHASE 1A**
 CITY OF MEBANE, ORANGE CO., NORTH CAROLINA
 PROPERTY AS DESCRIBED IN DB 6744/1296 SHOWN HEREON
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SURVEY PROJECT MGR: RAH		19-0139
DRAWN BY: JJRAH		DRAWING NAME
SURVEYED BY: TD		19-0139_PH1A
CHECKED BY: WHM		SHEET 4 OF 5

Line #	Length	Direction	Line #	Length	Direction	Line #	Length	Direction	Line #	Length	Direction	Line #	Length	Direction	Line #	Length	Direction	Line #	Length	Direction	Line #	Length	Direction			
SDL135	52.278	N81° 42' 23.59"W	SDL519	10.509	N15° 22' 54.66"E	SDL539	8.082	S05° 32' 30.29"W	SDL559	72.887	N48° 09' 12.05"W	SDL579	33.790	S62° 13' 17.50"E	SDL599	291.831	S29° 53' 32.52"E	SDL619	6.266	N07° 56' 24.64"E	SDL639	49.723	S44° 07' 40.30"W	SDL659	57.971	N81° 42' 23.59"W
SDL136	12.612	N81° 42' 23.59"W	SDL520	14.428	N05° 19' 23.56"E	SDL540	22.055	S11° 55' 48.19"W	SDL560	39.626	N42° 43' 27.03"W	SDL580	10.719	S55° 29' 30.49"E	SDL600	150.679	N63° 11' 56.30"E	SDL620	120.742	S82° 03' 35.36"E	SDL640	34.538	N45° 56' 00.94"W	SDL660	10.515	N81° 42' 23.59"W
SDL137	20.000	S08° 16' 42.40"W	SDL521	84.361	N58° 05' 22.86"E	SDL541	16.955	S01° 51' 34.49"W	SDL561	37.012	N32° 56' 55.36"W	SDL581	22.621	S38° 20' 11.08"E	SDL601	47.989	N33° 17' 55.84"W	SDL621	15.890	S33° 26' 22.35"E	SDL641	71.170	N15° 08' 53.21"W	SDL661	10.515	N81° 42' 23.59"W
SDL500	20.449	N21° 59' 46.63"W	SDL522	95.093	S58° 05' 22.86"E	SDL542	7.930	S01° 11' 53.08"E	SDL562	41.429	N32° 56' 55.36"W	SDL582	20.352	S72° 08' 33.40"E	SDL602	143.420	S80° 32' 51.05"E	SDL622	131.025	S08° 16' 42.40"W	SDL642	23.148	N72° 29' 00.85"W	SDL662	10.515	N81° 42' 23.59"W
SDL501	80.287	S08° 16' 42.40"W	SDL523	28.003	S05° 19' 23.56"E	SDL543	26.972	S12° 04' 55.61"E	SDL563	54.054	N89° 55' 25.14"E	SDL583	20.000	N17° 51' 26.60"E	SDL603	95.852	S18° 47' 22.06"E	SDL623	110.847	S08° 16' 42.40"W	SDL643	20.625	S72° 29' 00.85"W	SDL663	10.515	N81° 42' 23.59"W
SDL502	147.917	S77° 44' 26.83"E	SDL524	17.691	S19° 22' 54.66"E	SDL544	55.150	N63° 30' 20.04"W	SDL564	24.582	S65° 46' 54.47"E	SDL584	14.274	N72° 08' 33.40"W	SDL604	86.776	S29° 49' 38.09"W	SDL624	600.000	S81° 43' 17.60"E	SDL644	24.325	S34° 58' 10.90"W	SDL664	10.515	N81° 42' 23.59"W
SDL503	20.000	S12° 15' 33.17"W	SDL525	15.695	S35° 23' 25.72"E	SDL545	20.000	S26° 13' 20.89"W	SDL565	38.818	S79° 22' 06.35"E	SDL585	12.757	N38° 20' 11.08"W	SDL605	108.921	S83° 35' 57.85"E	SDL625	580.000	S81° 43' 17.60"E	SDL645	41.826	S30° 36' 49.48"W	SDL665	10.515	N81° 42' 23.59"W
SDL504	166.635	N77° 44' 26.83"E	SDL526	9.797	S47° 51' 55.60"E	SDL546	71.456	S63° 46' 39.11"E	SDL566	29.142	S83° 45' 21.73"E	SDL586	88.199	S72° 25' 01.46"E	SDL606	20.000	N06° 24' 02.15"E	SDL626	23.421	S19° 11' 35.44"W	SDL646	42.489	S19° 08' 05.54"W	SDL666	10.515	N81° 42' 23.59"W
SDL505	93.559	N08° 27' 58.24"E	SDL527	48.845	S31° 41' 20.09"E	SDL547	8.884	S25° 48' 45.61"E	SDL567	16.935	S85° 29' 56.88"E	SDL587	32.236	S52° 58' 04.02"W	SDL607	98.781	N83° 35' 57.85"W	SDL627	41.523	N89° 50' 23.08"W	SDL647	72.881	N84° 50' 51.53"W	SDL667	10.515	N81° 42' 23.59"W
SDL506	24.953	S21° 59' 46.63"E	SDL528	51.269	S33° 03' 53.14"E	SDL548	70.831	S45° 21' 39.03"W	SDL568	17.102	N88° 43' 06.60"E	SDL588	20.000	S37° 01' 55.98"E	SDL608	74.703	N19° 49' 38.09"W	SDL628	46.125	S08° 35' 06.99"W	SDL648	20.000	S05° 09' 08.47"W	SDL668	10.515	N81° 42' 23.59"W
SDL507	46.797	S72° 25' 01.46"E	SDL529	50.068	S35° 25' 49.47"E	SDL549	20.003	S43° 43' 36.04"E	SDL569	20.605	S83° 11' 47.70"E	SDL589	22.671	S52° 58' 04.02"W	SDL609	105.880	N18° 47' 22.06"W	SDL629	5.155	S45° 56' 00.94"E	SDL649	68.167	S84° 50' 51.53"E	SDL669	10.515	N81° 42' 23.59"W
SDL508	57.958	S49° 08' 09.56"E	SDL530	37.102	S31° 25' 31.06"E	SDL550	66.273	N45° 21' 39.03"W	SDL570	39.307	N86° 18' 57.02"E	SDL590	121.316	S63° 11' 56.30"W	SDL610	23.529	N33° 26' 22.35"W	SDL630	39.478	S44° 07' 40.30"W	SDL650	17.622	S15° 29' 29.53"W	SDL670	10.515	N81° 42' 23.59"W
SDL509	40.830	S68° 38' 34.97"E	SDL531	23.465	S51° 02' 03.84"E	SDL551	10.914	S51° 06' 16.01"E	SDL571	20.000	N03° 41' 02.98"W	SDL591	276.327	N29° 53' 32.52"W	SDL611	49.279	N09° 17' 41.20"E	SDL631	164.637	N81° 43' 17.60"E	SDL651	93.827	S80° 21' 31.31"E	SDL671	10.515	N81° 42' 23.59"W
SDL510	18.679	S51° 02' 03.84"E	SDL532	40.497	S58° 38' 34.97"E	SDL552	10.409	S42° 16' 28.88"E	SDL572	37.471	S86° 18' 57.02"W	SDL592	133.667	N49° 26' 30.43"W	SDL612	40.760	N82° 03' 35.36"E	SDL632	54.113	N86° 53' 32.44"W	SDL652	23.842	S19° 11' 35.44"W	SDL672	10.515	N81° 42' 23.59"W
SDL511	27.355	S31° 25' 31.06"E	SDL533	9.813	S49° 08' 09.56"E	SDL553	16.790	N77° 50' 43.52"E	SDL573	20.182	N83° 11' 47.70"W	SDL593	27.138	S53° 58' 09.76"E	SDL613	41.623	N07° 56' 35.95"E	SDL633	137.537	N87° 10' 54.98"W	SDL653	19.737	S75° 48' 01.82"W	SDL673	10.515	N81° 42' 23.59"W
SDL514	37.317	N35° 25' 49.47"W	SDL534	58.111	N72° 25' 01.46"W	SDL554	9.389	N45° 00' 07.23"E	SDL574	17.505	S88° 43' 06.60"W	SDL594	204.234	N88° 46' 04.79"W	SDL614	54.329	N82° 00' 43.78"W	SDL634	44.478	N88° 08' 11.11"W	SDL654	21.476	S07° 10' 09.84"W	SDL674	10.515	N81° 42' 23.59"W
SDL515	50.616	N33° 03' 53.14"W	SDL535	168.287	S78° 48' 51.12"W	SDL555	100.171	N10° 01' 53.75"E	SDL575	15.621	N85° 29' 56.88"W	SDL595	20.000	S01° 13' 55.21"W	SDL615	4.006	N09° 31' 07.33"E	SDL635	46.560	N88° 08' 11.11"W	SDL655	75.864	N75° 48' 01.82"E	SDL675	10.515	N81° 42' 23.59"W
SDL516	51.447	N31° 41' 20.09"W	SDL536	65.034	S89° 55' 25.14"W	SDL556	24.298	N05° 42' 15.78"E	SDL576	28.072	N83° 45' 21.73"W	SDL596	197.966	S88° 46' 04.79"E	SDL616	104.642	N80° 28' 52.67"W	SDL636	137.320	N87° 10' 54.98"W	SDL656	20.126	S08° 16' 42.40"W	SDL676	10.515	N81° 42' 23.59"W
SDL517	10.453	N47° 51' 55.60"W	SDL537	35.445	S02° 28' 56.45"E	SDL557	12.944	N45° 19' 10.21"E	SDL577	23.526	N79° 22' 06.35"W	SDL597	20.080	S53° 58' 09.76"E	SDL617	131.478	S09° 07' 00.96"W	SDL637	53.159	N86° 53' 32.44"W	SDL657	158.715	S80° 32' 51.05"E	SDL677	10.515	N81° 42' 23.59"W
SDL518	9.981	N35° 25' 49.47"W	SDL538	13.244	S00° 15' 08.69"E	SDL558	47.235	N19° 46' 40.53"E	SDL578	126.919	N78° 48' 51.12"E	SDL598	129.431	S49° 26' 30.43"E	SDL618	78.459	S81° 32' 12.31"E	SDL638	173.958	N81° 43' 17.60"W	SDL658	57.971	N81° 42' 23.59"W			

CURVE #	RADIUS	LENGTH	DELTA	TANGENT	CHORD BEARING	CHORD
SDC7	20.00'	10.58'	30°18'00"	5.42'	S34° 28' 42"W	10.45'
SDC57	275.00'	13.20'	2°45'00"	6.60'	S17° 57' 12"W	13.20'
SDC58	330.00'	21.92'	3°48'24"	10.97'	S58° 10' 05"E	21.92'
SDC59	260.00'	24.78'	5°27'39"	12.40'	N57° 25' 04"W	24.77'
SDC60	330.00'	56.77'	9°51'27"	28.46'	N78° 40' 43"W	56.70'
SDC61	206.00'	18.15'	5°02'49"	9.08'	N19° 09' 36"E	18.14'
SDC62	325.00'	27.00'	4°45'35"	13.51'	N32° 56' 55"W	26.99'
SDC500	106.29'	28.93'	15°35'36"	14.55'	N24° 44' 23"W	28.84'



NO.	REVISIONS	DATE	BY
7			
6			
5			
4			
3			
2			
1			

FINAL MAJOR SUBDIVISION PLAT OF
OAKWOOD PHASE 1A
CITY OF MEBANE, ORANGE CO., NORTH CAROLINA
PROPERTY AS DESCRIBED IN DB 6744/1296 SHOWN HEREON
STANDING IN THE NAME OF
MERITAGE HOMES OF THE CAROLINAS

SUMMIT
DESIGN AND ENGINEERING SERVICES
License #: P-0339
320 Executive Court
Hillsborough, NC 27278-8551
Voice: (919) 732-3883 Fax: (919) 732-6676
www.summitde.com

PROJECT ENGINEER: _____
SURVEY PROJECT MGR: RAH
DRAWN BY: JJRAH
SURVEYED BY: TD
CHECKED BY: WHM

COPYRIGHT © 2023
SUMMIT DESIGN AND ENGINEERING SERVICES
DRAWING ALTERATION
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS
ACTING UNDER THE DIRECTION OF LICENSED
ARCHITECT, PROFESSIONAL ENGINEER, LANDSCAPE
ARCHITECT, OR LAND SURVEYOR TO ALTER ANY ITEM
ON THIS DOCUMENT IN ANY WAY. ANY LICENSEE WHO
ALTERS THIS DOCUMENT IS REQUIRED BY LAW TO
AFFIX HIS OR HER SEAL AND THE NOTATION "ALTERED
BY" FOLLOWED BY HIS OR HER SIGNATURE AND
SPECIFIC DESCRIPTION OF THE ALTERATIONS.

PROJECT NO.
19-0139
DRAWING NAME
19-0139_PH1A
SHEET 5 OF 5

PRELIMINARY PLAT
FOR REVIEW 01/03/2024



AGENDA ITEM #6A

RZ 24-07

Conditional Rezoning – The Building Center

Presenter

Ashley Ownbey, Development Director

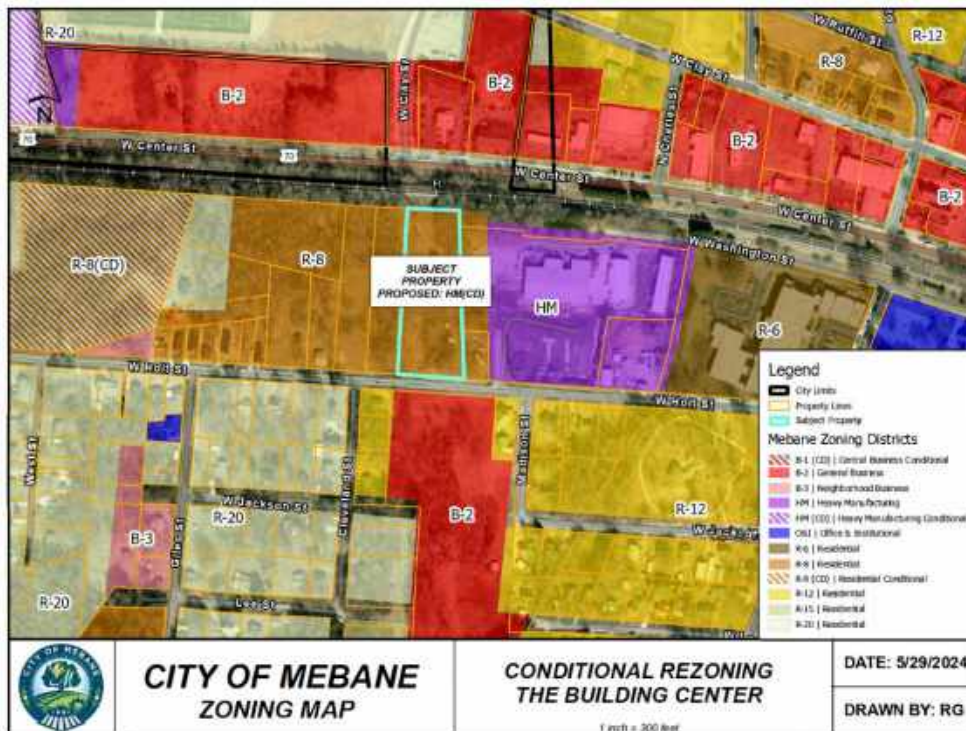
Applicant

Norris Family 2 LLC
10201 Industrial Drive
Pineville, NC 28134

Public Hearing

Yes No

Zoning Map



Property

506 W Holt Street
Alamance County
GPIN: 9815840394

Proposed Zoning

HM (CD)

Current Zoning

R-8

Size

+/- 2.048 acres

Surrounding Zoning

R-8, R-12, HM, B-2

Surrounding Land Uses

Residential,
Industrial,
Commercial

Utilities

Available

Floodplain

No

Watershed

No

City Limits

Yes

Application Brief

See Planning Project Report for more details.

Recommendations	
Technical Review Committee:	The Technical Review Committee (TRC) has reviewed the site plan four times and the applicant has revised the plan to reflect the comments.
Planning Staff:	The proposed development “The Building Center” is consistent with the guidance provided within <i>Mebane By Design</i> , the Mebane Comprehensive Land Development Plan.
Planning Board:	At their June 10 meeting, the Planning Board voted 6-0 to recommend approval of the conditional rezoning request.
Zoning & Land Use Report	
Jurisdiction:	City Limits
Proposed Use By-Right (Yes/No):	No
Type of Rezoning Request:	Conditional
Special Use Request (Yes/No):	No
Consistency with Mebane By Design (Yes/No):	Yes
Utilities Report	
Available Utilities (Yes/No):	Yes
Adequate Stormwater Control (Yes/No):	Yes
Innovative Stormwater Control (Yes/No):	No
Consistency with Long-Range Utility Plan (Yes/No):	Yes
Transportation Report	
Traffic Impact Analysis Required (Yes/No):	No
Multi-Modal Improvements (Yes/No):	Yes
Consistency with Bike/Ped Transportation Plan (Yes/No):	Yes

Summary

Norris Family 2, LLC is requesting approval to conditionally rezone the +/- 2.048-acre property located at 506 W Holt Street (GPIN 9815840394), from R-8 to HM (CD) to allow for outdoor storage, including a construction material laydown yard, by the adjacent industrial business, The Building Center. The property is located within Alamance County in City limits.

The following conditions are proposed with the conditional rezoning request:

Proposed Conditions of Zoning District	Mebane UDO Requirements
The applicant is requesting that the required landscape buffers on the west, south, and southeast sides of the property be reduced to a minimum of 20 feet, as shown on the site plan. Part of the reductions are caused by a 68' Duke Energy easement and a 20' City of Mebane sewer easement.	Pursuant to the requirements of Section 6-4 of the Mebane UDO, a 125-foot buffer would be required from the adjacent residential property to the east and a 70-foot buffer would be required from the adjacent vacant (residentially zoned) property on the west side of the subject property.

Financial Impact

The developer will be required to make all of the improvements at his own expense.

Suggested Motion

1. Motion to approve the HM(CD) zoning as presented.
2. Motion to find that **the application is consistent** with the objectives and goals in the City's 2017 Comprehensive Land Development Plan *Mebane By Design*. Specifically, the request:
 - Is for a property within the City's G-1 Downtown Mixed-Use Area and in a generally industrial area (Mebane CLP, p. 68).

OR

3. Motion to **deny** the HM(CD) rezoning as presented due to a lack of
 - a. Harmony with the surrounding zoning or land use

OR

 - b. Consistency with the objectives and goals in the City's 2017 Comprehensive Land Development Plan *Mebane By Design*.

Attachments

1. Preliminary Presentation Slides

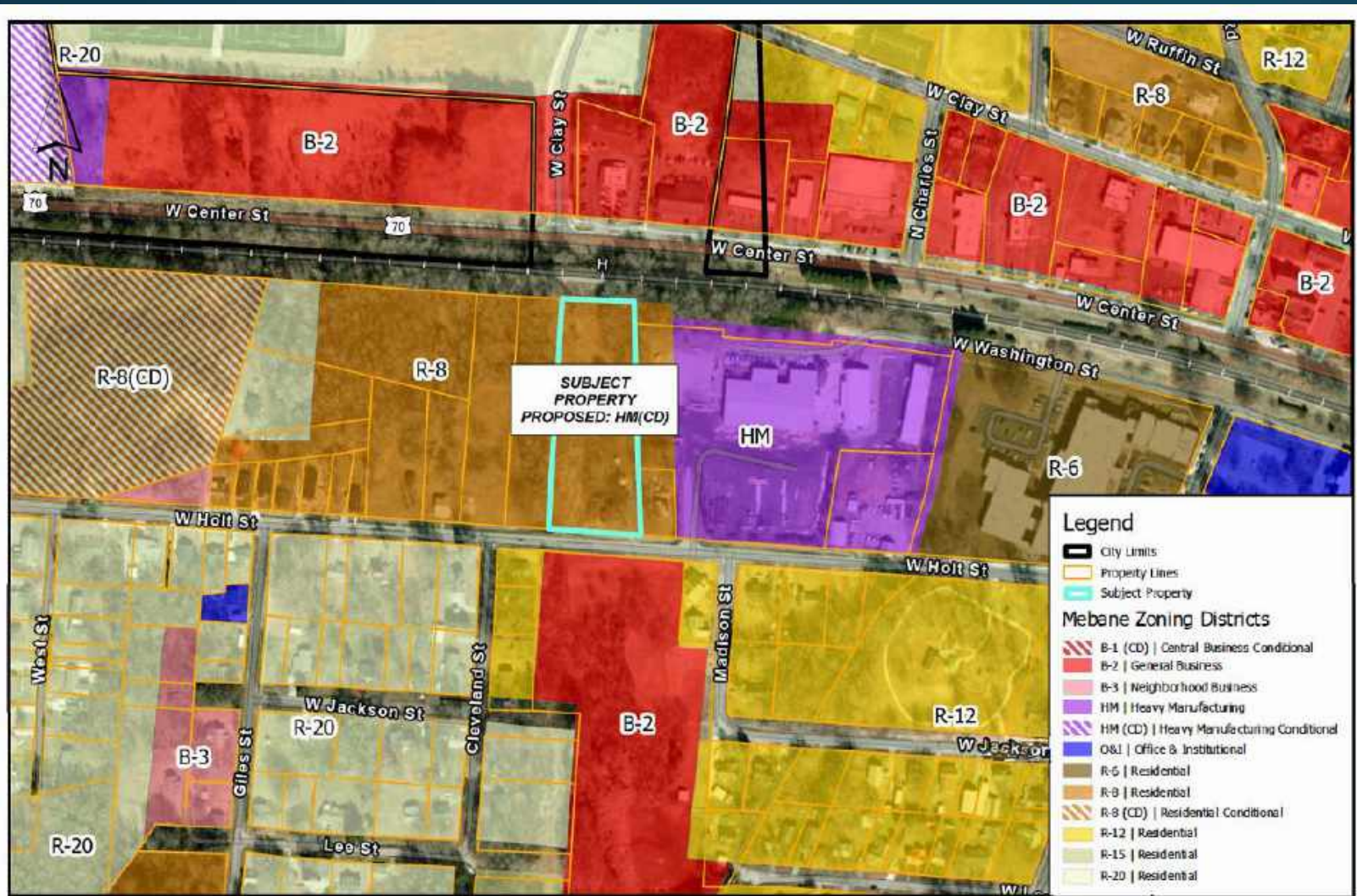
2. Zoning Amendment Application
3. Zoning Map
4. Site Plan
5. Planning Project Report
6. Technical Memorandum – City Engineering Review



Ashley Ownbey, Development Director

Rezoning Request: R-8 to HM (CD)
by Norris Family 2, LLC





The Building Center Conditional Zoning Request

- Request by Norris Family 2 LLC
- One +/- 2.048 acre lot
- Existing zoning: R-8
- Requested zoning: HM (CD)



CITY OF MEBANE
ZONING MAP

CONDITIONAL REZONING
THE BUILDING CENTER

1 inch = 300 feet

DATE: 5/29/2024

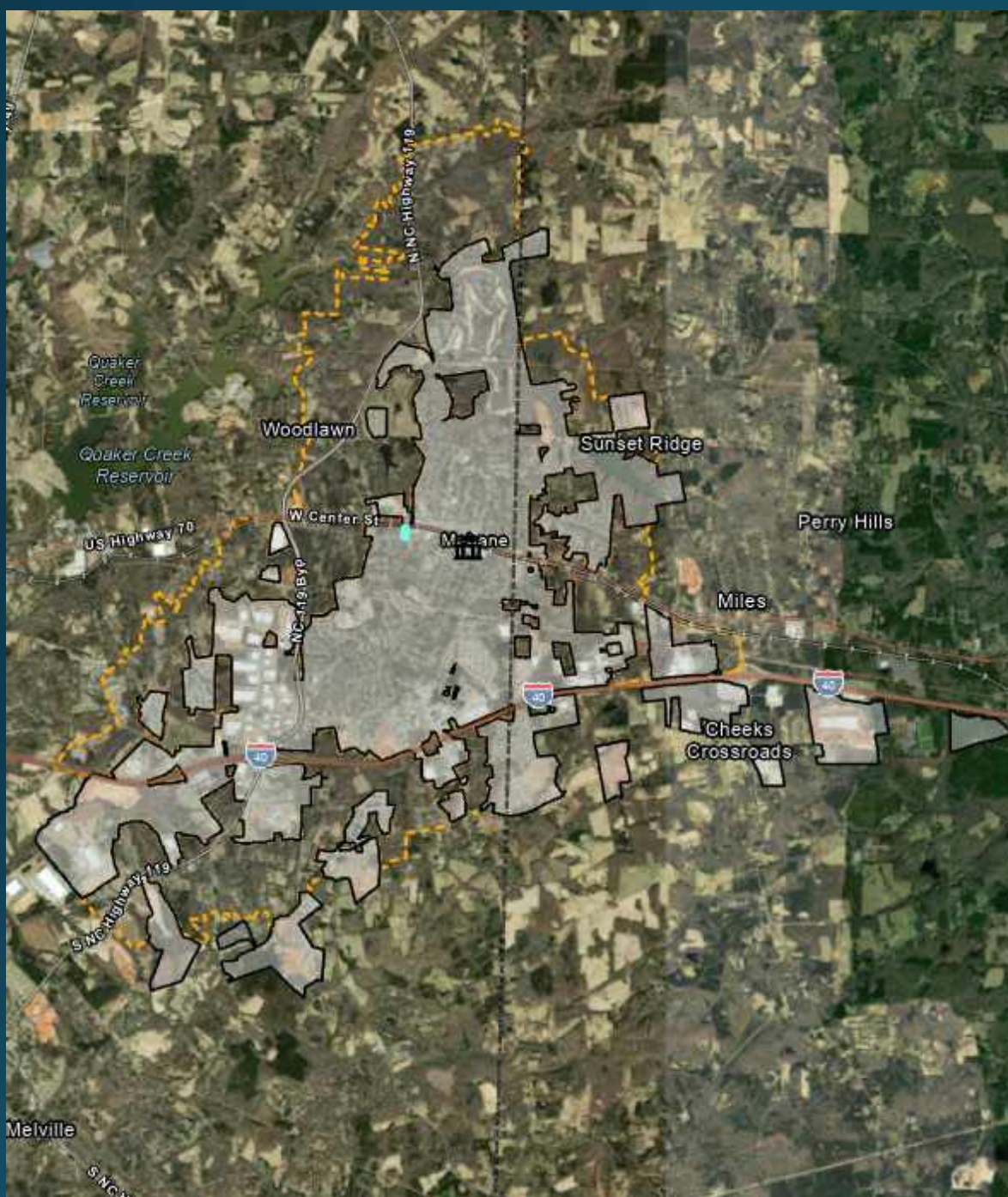
DRAWN BY: RG



The Building Center

Conditional Zoning Request

- Mebane City Limits





The Building Center

Conditional Zoning Request

- Existing Single-Family Residence
- Surrounding uses include:
 - Industrial – The Building Center
 - Commercial – Auto Sales Lot
 - Residential
 - Vacant

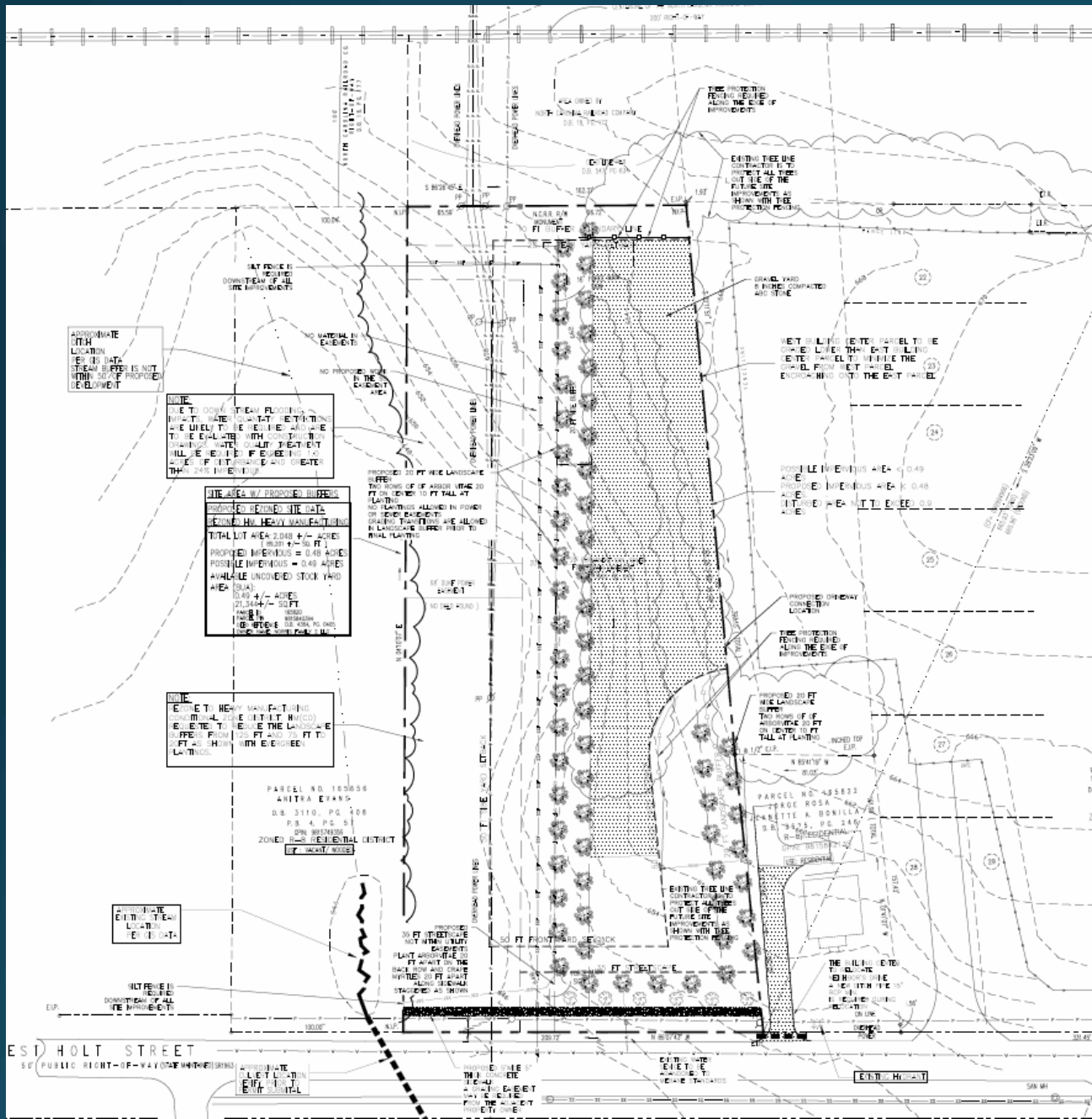




The Building Center Conditional Rezoning Request

- *Mebane By Design* G-1 Mixed Use (Downtown) Growth Strategy Area





The Building Center

Conditional Zoning Request

The applicant is requesting a conditional rezoning to HM(CD) to allow outdoor storage, including a construction material laydown yard, to be utilized by the adjacent business, The Building Center.

Multi-modal Improvements:

- Construction of a 5-foot sidewalk along the property's boundaries on West Holt Street.

Road Improvements:

- No road improvements are required. The proposed development will not have direct access onto Holt Street and will instead be accessed from the Building Center's property.
- The applicant has agreed to relocate the driveway currently utilized by the resident at 500 West Holt Street.

Proposed Conditions:

- The applicant is requesting that the required landscape buffers be reduced to a minimum of 20 feet. Per Mebane UDO requirements, a 125-foot buffer would be required on the southeast side and a 70-foot buffer would be required on the west side.





Applicant Presentation



The Building Center Rezoning Briefing with the City of Mebane, NC

Mebane Truss Facility

The Building Center

6/4/2024

"Our mission is to be your most valued building partner, building the homes, we live in today."

Changes at TBC Mebane Location



- The intent of this project is to add just under a 1/2 acre lay down yard of storage for the materials which will complement the existing adjacent Building Center facility.
- In order to minimize impacts on the other adjacent properties the Building Center is only utilizing just under 1/2 acre of the 2.04 Acre lot. This leaves a larger area undisturbed which includes two utility easements of approximately 1 acre along the full length of the west property line.
- The Building Center is requesting a reduced landscape buffer in order to retain the total just under 1/2 acre lay down yard along the east property line.
 - The two utility easements do not allow a landscape buffer to be planted.
 - The proposed 20 ft landscape buffer to be planted around the less than 1/2 acre of lay down yard makes up approximately 0.15 acres.
 - The utility easements and the reduced 20 ft wide landscape buffer impacts more than half the property (1.15 acres of a 2 acre parcel).
 - Based on the minimal amount of remaining usable land the Building Center has requested the approval of the reduced 20 ft fully planted landscape buffer.
 - This is a densely planted buffer with two rows of Arborvitae plantings 20 ft on center and no less than 10 ft tall at planting.
- The Building Center has agreed to relocate the adjacent residence's driveway free of charge during construction.
- An invitation was sent out on October 18, 2023 to the area residence for a public meeting which was held on November 2, 2023 at 4 PM.
 - The meeting was held at the existing Building Center facility located at 501 West Washington Street in order to show the existing operation and where the additional lay down yard will be located.
 - The proposed site plan exhibit was on display for questions.
 - The Building Center provided two Chick-fil-A platters along with soft drinks.
 - Unfortunately no one from the neighborhood attended.

Mebane Truss Facility - Office

- Front Office:
 - Customer and Employee Parking
 - Administrative offices
 - Production office and breakroom space



Mebane Truss Facility – Yard - Parking

- TBC delivery vehicle parking
- Tractor and trailers
- Three axle delivery flatbeds
- Forklifts



Mebane Truss Facility – Yard – Laydown

- Staging for built floor and roof trusses
- Loading of delivery trucks and trailers



Mebane Truss Facility – Yard – Lumber Storage

- Lumber for customer purchase
- Lumber for floor and roof truss construction



Mebane Truss Facility – Truss Plant - Exterior

- Loading of loose lumber into the plant for truss manufacturing
- Stacking and banding of completed floor and roof trusses



Mebane Truss Facility – Truss Plant - Interior

- Floor truss manufacturing
- Automatic saws
- Joinery

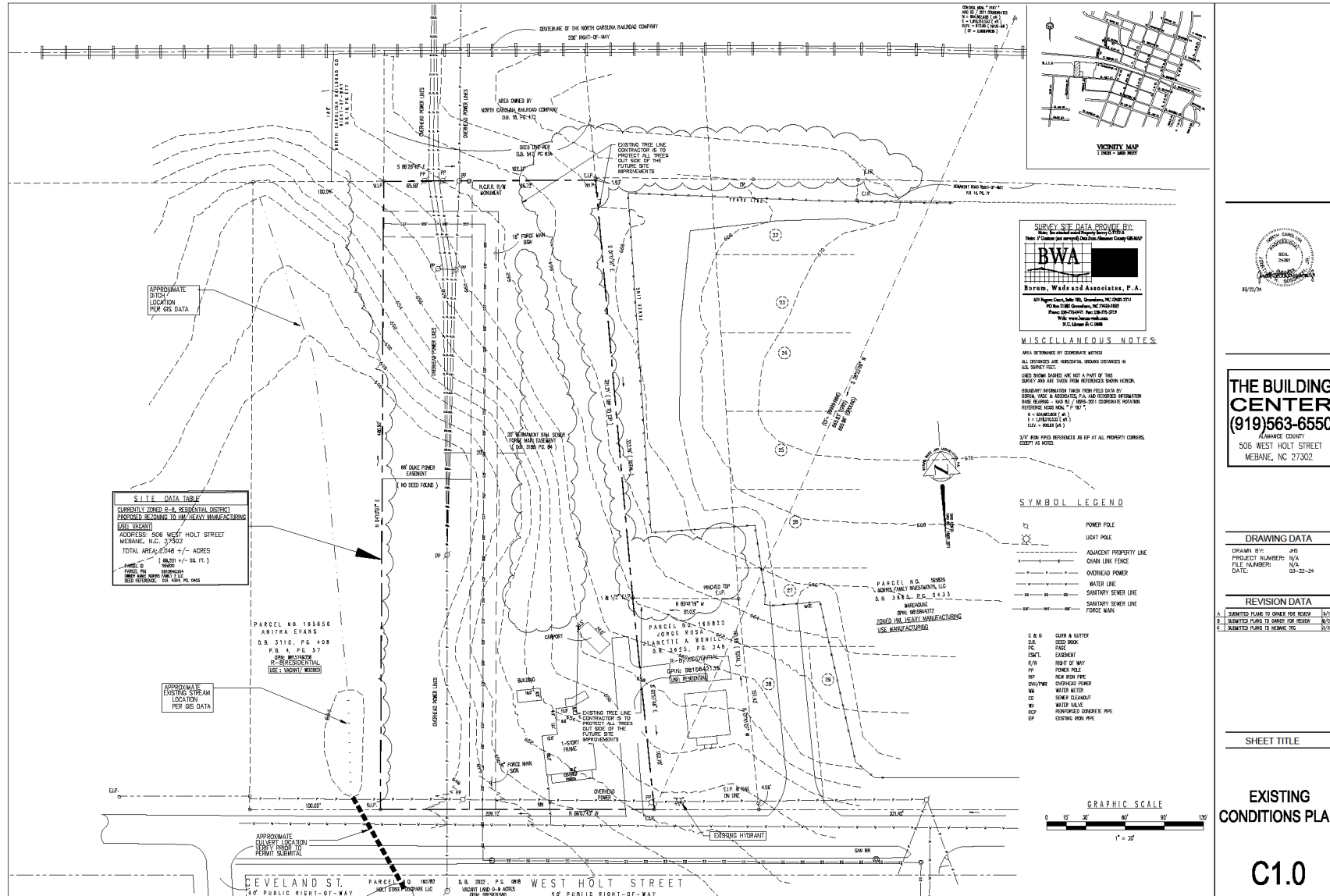


Mebane Truss Facility – Truss Plant - Interior

- Roof truss manufacturing and conveying



Mebane Truss Facility – Existing Conditions

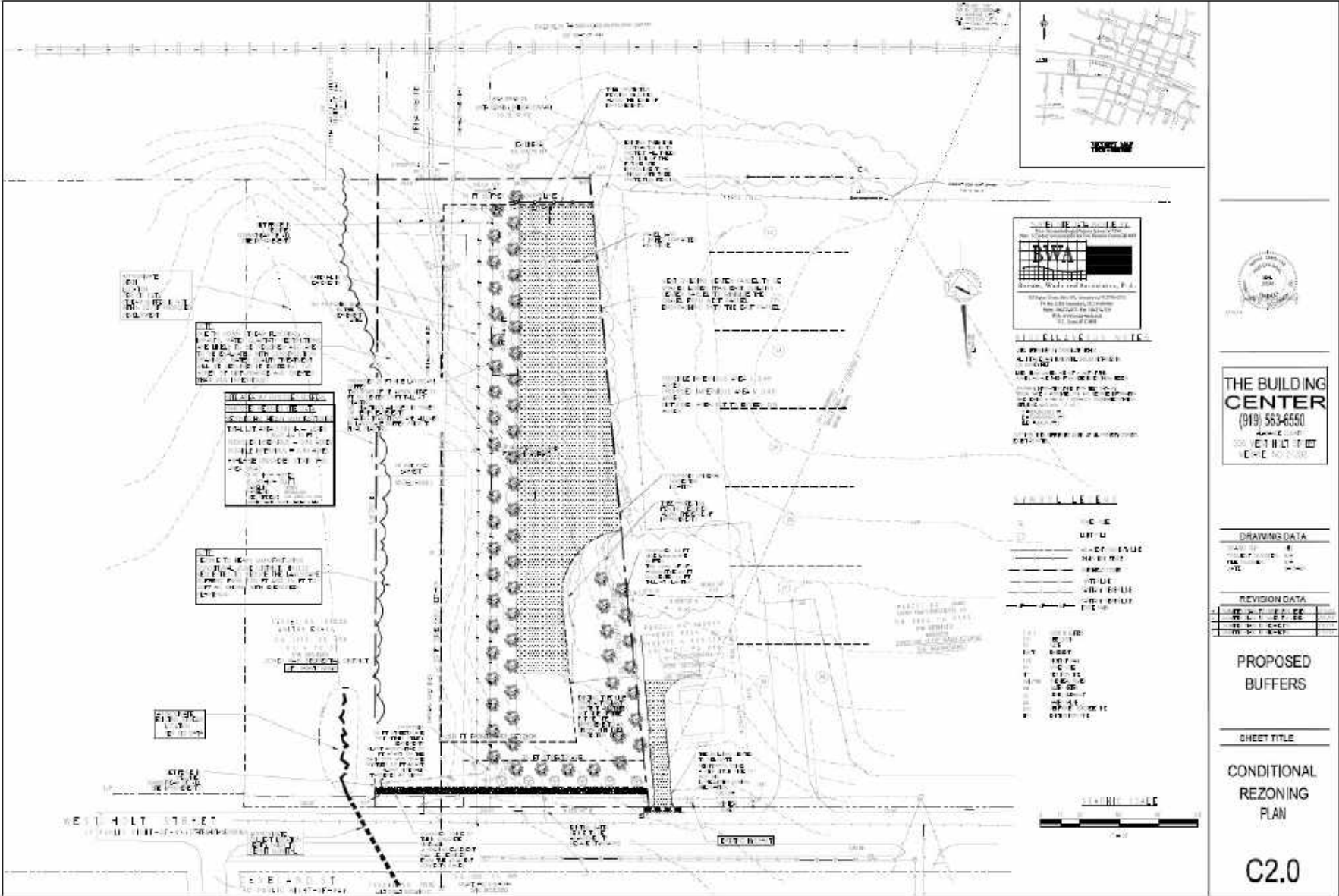


THE BUILDING CENTER
(919)563-6550
 ALAMANCE COUNTY
 505 WEST HOLT STREET
 MEBANE, NC 27302

EXISTING CONDITIONS PLAN

C1.0

Mebane Truss Facility – Conditional Rezoning



THE BUILDING CENTER
(919) 583-6660
1000 W. HART ST.
CARRBORO, NC 27510

DRAWING DATA

DATE	08/11/2023
SCALE	AS SHOWN
DATE	08/11/2023

REVISION DATA

NO.	DATE	DESCRIPTION
1	08/11/2023	ISSUED FOR PERMITS

PROPOSED BUFFERS

SHEET TITLE

CONDITIONAL REZONING PLAN

C2.0



APPLICATION FOR A ZONING AMENDMENT

Application is hereby made for an amendment to the Mebane Zoning Ordinance as follows:

Name of Applicant: NORRIS Family INVESTMENTS 2, LLC

Address of Applicant: 10201 INDUSTRIAL DRIVE PINEVILLE N.C 28134

Address and brief description of property to be rezoned: 506 W HOLT ST

MEBANE N.C. PARCEL #10-165820

Applicant's interest in property: (Owned, leased or otherwise) OWNED.

*Do you have any conflicts of interest with: Elected/Appointed Officials, Staff, etc.?

Yes ___ Explain: _____ No

Type of re-zoning requested: Hm (CD)

Sketch attached: Yes _____ No _____

Reason for the requested re-zoning: NEED ADDITIONAL SPACE TO Lay Down

WOOD TRUSS BEFORE SHIPPING TO CUSTOMERS

Signed: Coy Ciley Chief Real Estate OFFICER

Date: 4/19/2024

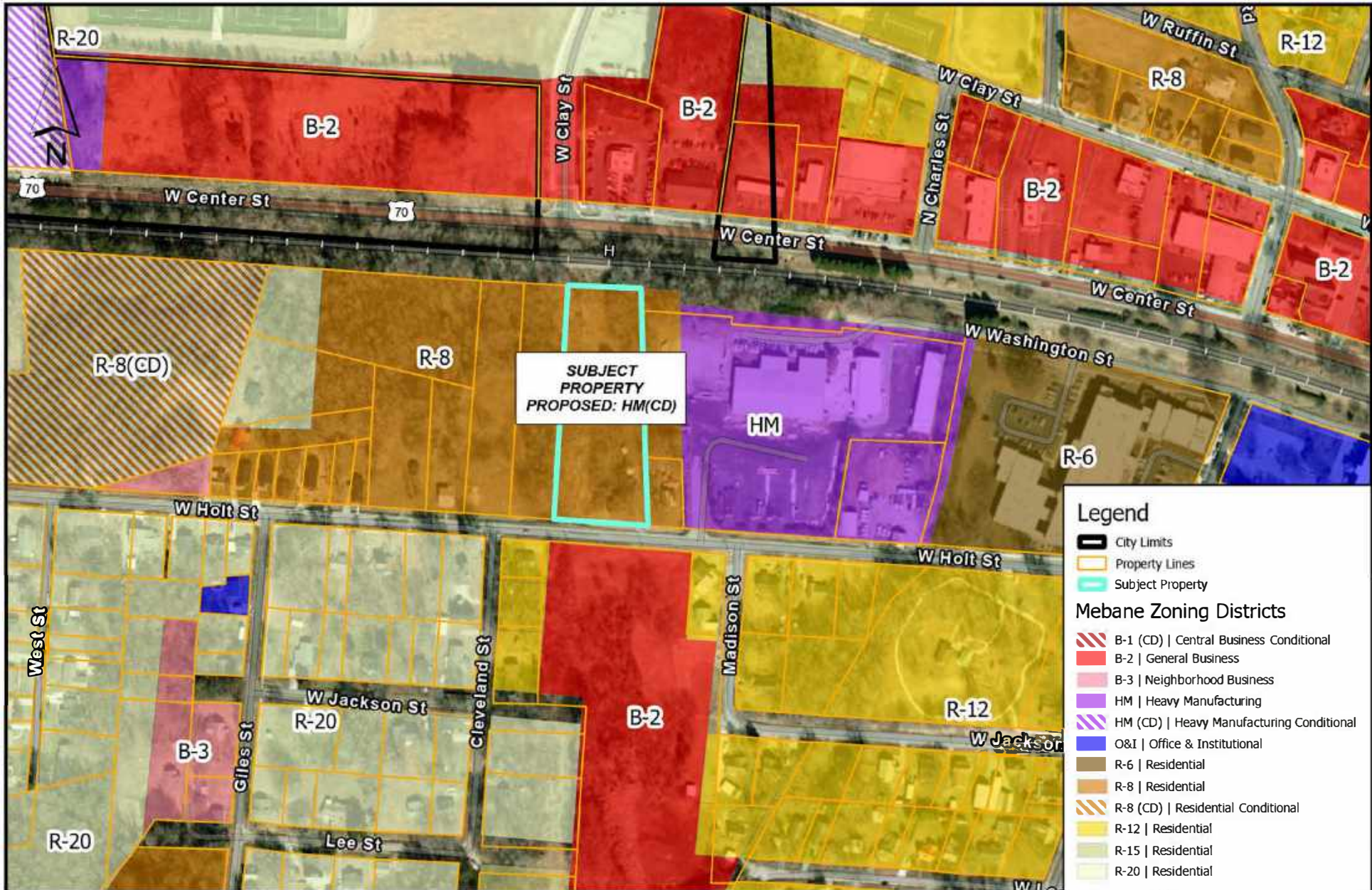
Action by Planning Board: _____

Public Hearing Date: _____ Action: _____

Zoning Map Corrected: _____

The following items should be included with the application for rezoning when it is returned:

1. Tax Map showing the area that is to be considered for rezoning.
2. Names and addresses of all adjoining property owners within a 300' radius (Include those that are across the street).
3. \$300.00 Fee to cover administrative costs.
4. The information is due 15 working days prior to the Planning Board meeting. The Planning Board meets the 2nd Monday of each month at 6:30 p.m. Then the request goes to the City Council for a Public Hearing the following month. The City Council meets the 1st Monday of each month at 6:00 p.m.



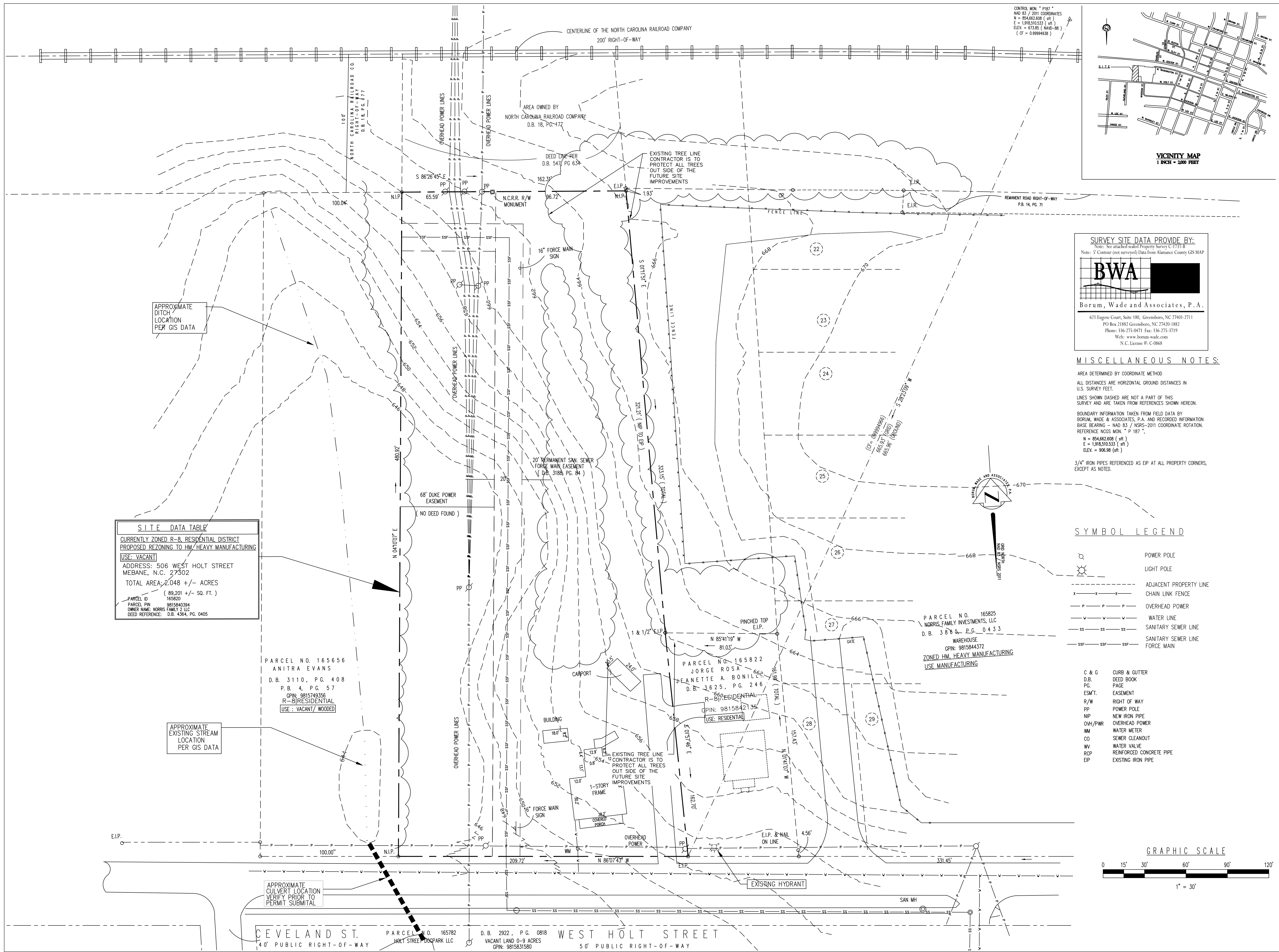
**CITY OF MEBANE
ZONING MAP**

**CONDITIONAL REZONING
THE BUILDING CENTER**

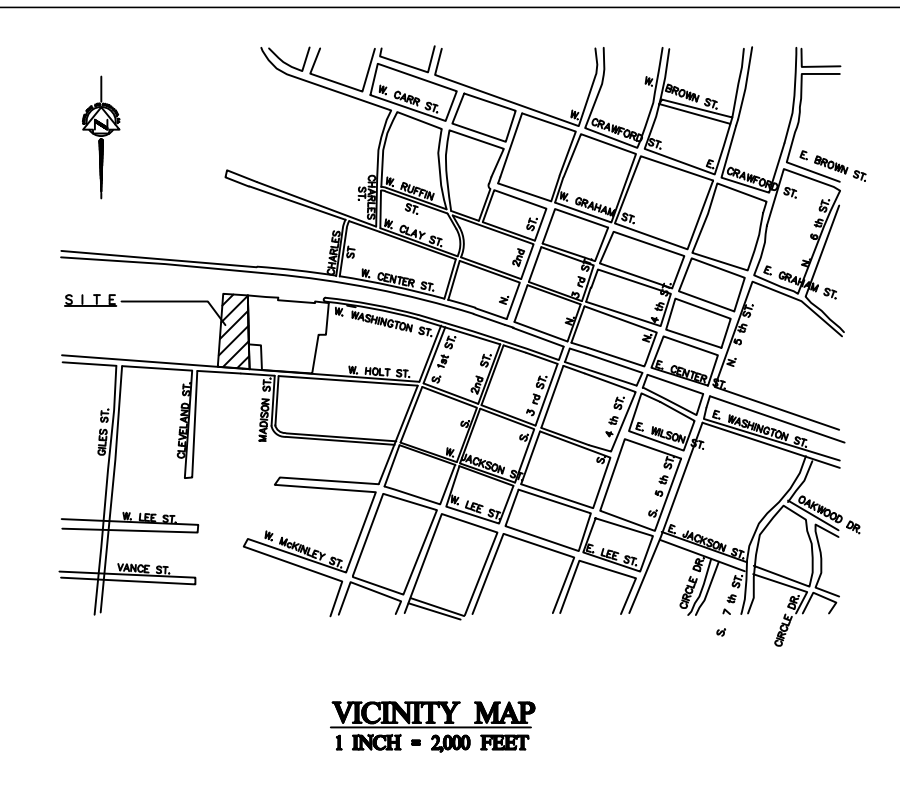
1 inch = 300 feet

DATE: 5/29/2024

DRAWN BY: RG



CONTROL MON. "P187"
 NAD 83 / 2011 COORDINATES
 N = 854625.698 (ft.)
 E = 1,918,510.533 (ft.)
 ELEV. = 673.85 (NAVD-88)
 (CP = 0.0000000)



SURVEY SITE DATA PROVIDED BY:
 Note: See attached scaled Property Survey C-1733-B
 Note: 5' Contour (not surveyed) Data from Alamance County GIS MAP

BWA
 Borum, Wade and Associates, P.A.

621 Eugene Court, Suite 100, Greensboro, NC 27401-2711
 PO Box 21882 Greensboro, NC 27420-1882
 Phone: 336-275-0471 Fax: 336-275-3719
 Web: www.borum-wade.com
 N.C. License #: C-0868

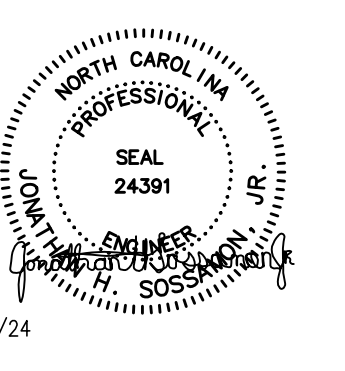
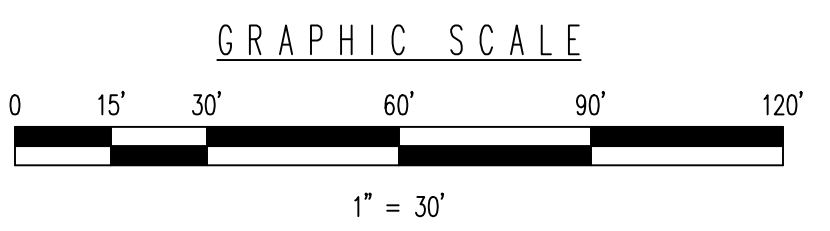
MISCELLANEOUS NOTES:

AREA DETERMINED BY COORDINATE METHOD
 ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET.
 LINES SHOWN DASHED ARE NOT A PART OF THIS SURVEY AND ARE TAKEN FROM REFERENCES SHOWN HEREON.
 BOUNDARY INFORMATION TAKEN FROM FIELD DATA BY BORUM, WADE & ASSOCIATES, P.A. AND RECORDED INFORMATION BASE BEARING - NAD 83 / NSRS-2011 COORDINATE ROTATION. REFERENCE MONUMENT "P 187".
 N = 854625.698 (ft.)
 E = 1,918,510.533 (ft.)
 ELEV. = 906.98 (ft.)
 3/4" IRON PIPES REFERENCED AS EIP AT ALL PROPERTY CORNERS, EXCEPT AS NOTED.

SYMBOL LEGEND

	POWER POLE
	LIGHT POLE
	ADJACENT PROPERTY LINE
	CHAIN LINK FENCE
	OVERHEAD POWER
	WATER LINE
	SANITARY SEWER LINE
	SANITARY SEWER LINE FORCE MAIN

C & G	CURB & GUTTER
D.B.	DEED BOOK
PG.	PAGE
ESMT.	EASEMENT
R/W	RIGHT OF WAY
PP	POWER POLE
NIP	NEW IRON PIPE
OVH/PWR	OVERHEAD POWER
WM	WATER METER
CO	SEWER CLEANOUT
WV	WATER VALVE
RCP	REINFORCED CONCRETE PIPE
EIP	EXISTING IRON PIPE



03/22/24

THE BUILDING CENTER
(919)563-6550
 ALAMANCE COUNTY
 506 WEST HOLT STREET
 MEBANE, NC 27302

DRAWING DATA

DRAWN BY: JHS
 PROJECT NUMBER: N/A
 FILE NUMBER: N/A
 DATE: 03-22-24

REVISION DATA

A	SUBMITTED PLANS TO OWNER FOR REVIEW	5/15/23
B	SUBMITTED PLANS TO OWNER FOR REVIEW	9/05/23
C	SUBMITTED PLANS TO MEBANE TRC	5/22/24

SHEET TITLE

EXISTING CONDITIONS PLAN

C1.0

SITE DATA TABLE

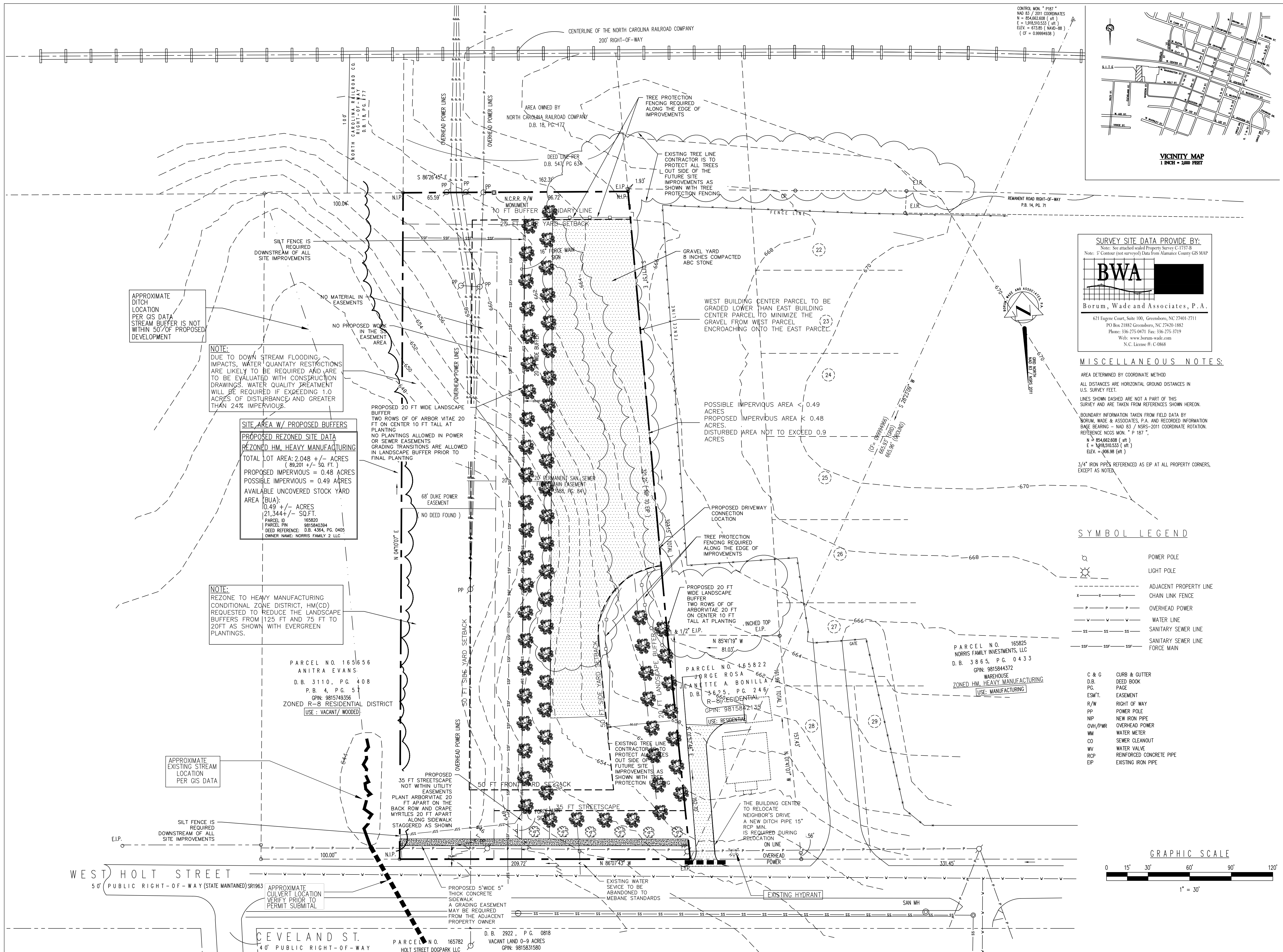
CURRENTLY ZONED R-8, RESIDENTIAL DISTRICT
 PROPOSED REZONING TO HM/HEAVY MANUFACTURING
 (USE: VACANT)
 ADDRESS: 506 WEST HOLT STREET
 MEBANE, N.C. 27302
 TOTAL AREA: 2.048 +/- ACRES
 (89,201 +/- SQ. FT.)
 PARCEL ID: 165820
 PARCEL PIN: 9815840394
 OWNER NAME: NORRIS FAMILY 2 LLC
 DEED REFERENCE: D.B. 4364, PG. 0405

PARCEL NO. 165656
 ANITRA EVANS
 D.B. 3110, PG. 408
 P. B. 4, P. G. 57
 CPIN: 9815749356
 R-8 RESIDENTIAL
 (USE: VACANT/ WOODED)

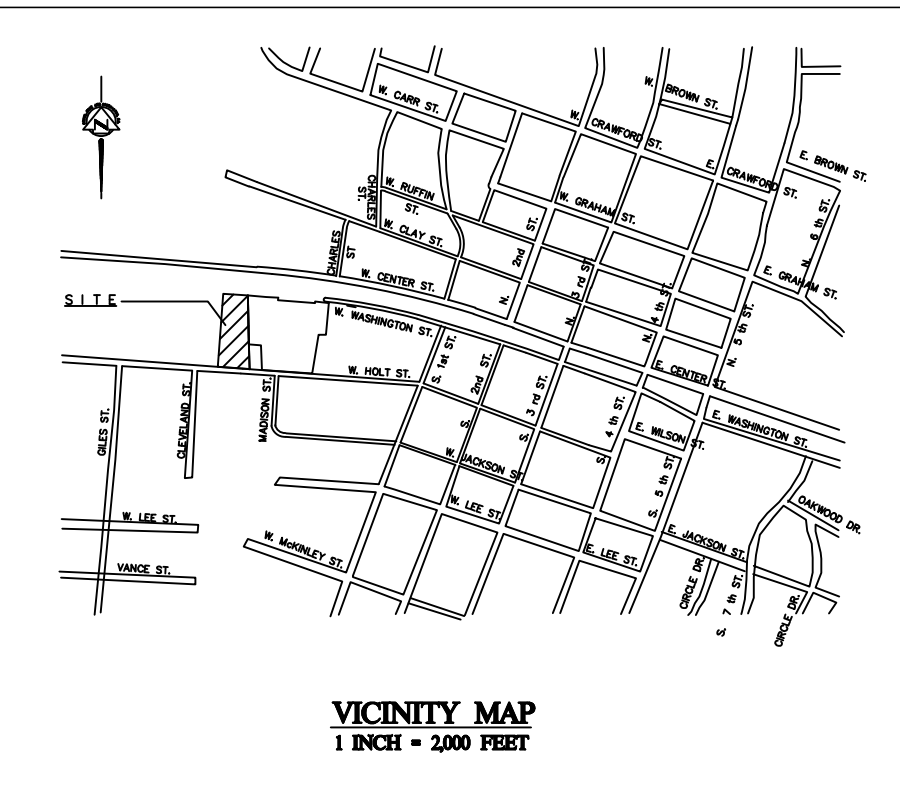
PARCEL NO. 165825
 NORRIS FAMILY INVESTMENTS, LLC
 D.B. 3885, PG. 0433
 WAREHOUSE
 CPIN: 9815844372
 ZONED HM, HEAVY MANUFACTURING
 USE: MANUFACTURING

PARCEL NO. 165822
 JORGE ROSA
 JEANETTE A. BONILLA
 D.B. 3625, PG. 246
 R-8 RESIDENTIAL
 CPIN: 9815842135
 (USE: RESIDENTIAL)

CEVELAND ST. 40' PUBLIC RIGHT-OF-WAY
 WEST HOLT STREET 50' PUBLIC RIGHT-OF-WAY

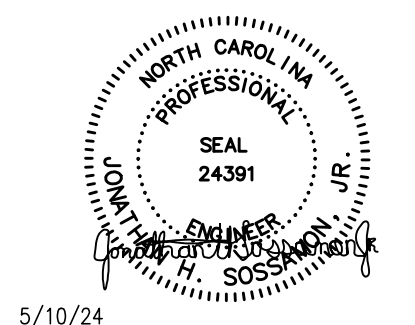


CONTROL MON. "P187"
 NAD 83 / 2011 COORDINATES
 N = 854662.608 (ft)
 E = 1,918,510.533 (ft)
 ELEV. = 673.85 (NAVD-88)
 (CF = 0.99994938)



SURVEY SITE DATA PROVIDE BY:
 Note: See attached scaled Property Survey C-1737-B
 Note: 5' Contour (not surveyed) Data from Alamance County GIS MAP

BWA
 Borum, Wade and Associates, P.A.
 621 Eugene Court, Suite 100, Greensboro, NC 27401-2711
 PO Box 21882 Greensboro, NC 27420-1882
 Phone: 336-275-0471 Fax: 336-275-3719
 Web: www.borum-wade.com
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MISCELLANEOUS NOTES:

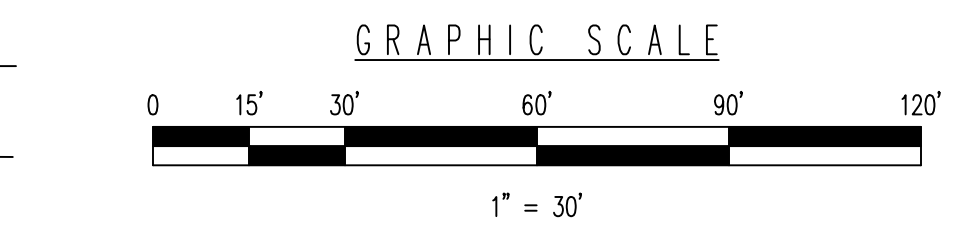
AREA DETERMINED BY COORDINATE METHOD
 ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET.
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 BOUNDARY INFORMATION TAKEN FROM FIELD DATA BY BORUM, WADE & ASSOCIATES, P.A. AND RECORDED INFORMATION. BAKE BEARING - NAD 83 / NSRS-2011 COORDINATE ROTATION. REFERENCE NOGS MON. "P 187".
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 E = 1,918,510.533 (ft)
 ELEV. = 606.98 (ft)

3/4" IRON PIPES REFERENCED AS EIP AT ALL PROPERTY CORNERS, EXCEPT AS NOTED.

SYMBOL LEGEND

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	LIGHT POLE
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C & G	CURB & GUTTER
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OVH/PWR	OVERHEAD POWER
WM	WATER METER
CO	SEWER CLEANOUT
WV	WATER VALVE
RCP	REINFORCED CONCRETE PIPE
EIP	EXISTING IRON PIPE



APPROXIMATE DITCH LOCATION PER GIS DATA. STREAM BUFFER IS NOT WITHIN 50' OF PROPOSED DEVELOPMENT.

NOTE:
 DUE TO DOWN STREAM FLOODING IMPACTS, WATER QUANTITY RESTRICTIONS ARE LIKELY TO BE REQUIRED AND ARE TO BE EVALUATED WITH CONSTRUCTION DRAWINGS. WATER QUALITY TREATMENT WILL BE REQUIRED IF EXCEEDING 1.0 ACRES OF DISTURBANCE AND GREATER THAN 24% IMPERVIOUS.

SITE AREA W/ PROPOSED BUFFERS
PROPOSED REZONED SITE DATA
 REZONED HM, HEAVY MANUFACTURING
 TOTAL LOT AREA: 2,048 +/- ACRES (89,201 +/- SQ. FT.)
 PROPOSED IMPERVIOUS = 0.48 ACRES
 POSSIBLE IMPERVIOUS = 0.49 ACRES
 AVAILABLE UNCOVERED STOCK YARD AREA (BUA):
 0.49 +/- ACRES
 21,344 +/- SQ.FT.
 PARCEL ID: 165820
 PARCEL PIN: 9815840394
 DEED REFERENCE: D.B. 4364, PG. 0405
 OWNER NAME: NORRIS FAMILY 2 LLC

NOTE:
 REZONE TO HEAVY MANUFACTURING CONDITIONAL ZONE DISTRICT, HM(CD) REQUESTED TO REDUCE THE LANDSCAPE BUFFERS FROM 125 FT AND 75 FT TO 20 FT AS SHOWN WITH EVERGREEN PLANTINGS.

PARCEL NO. 1651656
 ANITRA EVANS
 D.B. 3110, PG. 408
 P. B. 4, P. G. 51
 ZONED R-8 RESIDENTIAL DISTRICT
 (USE: VACANT/ WOODED)

PARCEL NO. 165825
 NORRIS FAMILY INVESTMENTS, LLC
 D.B. 3865, PG. 0433
 GPIN: 9815844372
 WAREHOUSE
 ZONED HM, HEAVY MANUFACTURING
 (USE: MANUFACTURING)

PARCEL NO. 455822
 JORGE ROSA
 ANITTE A. BONILLA
 D.B. 3625, PG. 246
 R-8 RESIDENTIAL
 GPIN: 9815842133
 (USE: RESIDENTIAL)

APPROXIMATE CULVERT LOCATION VERIFY PRIOR TO PERMIT SUBMITAL

PARCEL NO. 165782
 HOLT STREET DOGPARK LLC
 D.B. 2922, P.G. 0818
 VACANT LAND 0-9 ACRES
 GPIN: 9815831580

5/10/24

THE BUILDING CENTER
 (919) 563-6550
 ALAMANCE COUNTY
 506 WEST HOLT STREET
 MEBANE, NC 27302

DRAWING DATA

DRAWN BY:	JHS
PROJECT NUMBER:	N/A
FILE NUMBER:	N/A
DATE:	5-14-24

REVISION DATA

A	SUBMITTED PLANS TO OWNER FOR REVIEW	5/15/23
B	SUBMITTED PLANS TO OWNER FOR REVIEW	9/05/23
C	SUBMITTED PLANS TO MEBANE TRC	5/22/24
D	SUBMITTED PLANS TO MEBANE TRC	5/14/24

PROPOSED BUFFERS

SHEET TITLE

CONDITIONAL REZONING PLAN

C2.0

PLANNING PROJECT REPORT

DATE	06/03/2024
PROJECT NUMBER	RZ 24-07
PROJECT NAME	The Building Center
APPLICANT	Norris Family 2, LLC 10201 Industrial Drive Pineville, NC 28134

CONTENTS

PROJECT NAME & APPLICANT PAGE 1

ZONING REPORT PAGE 2

LAND USE REPORT PAGE 4

UTILITIES REPORT PAGE 6

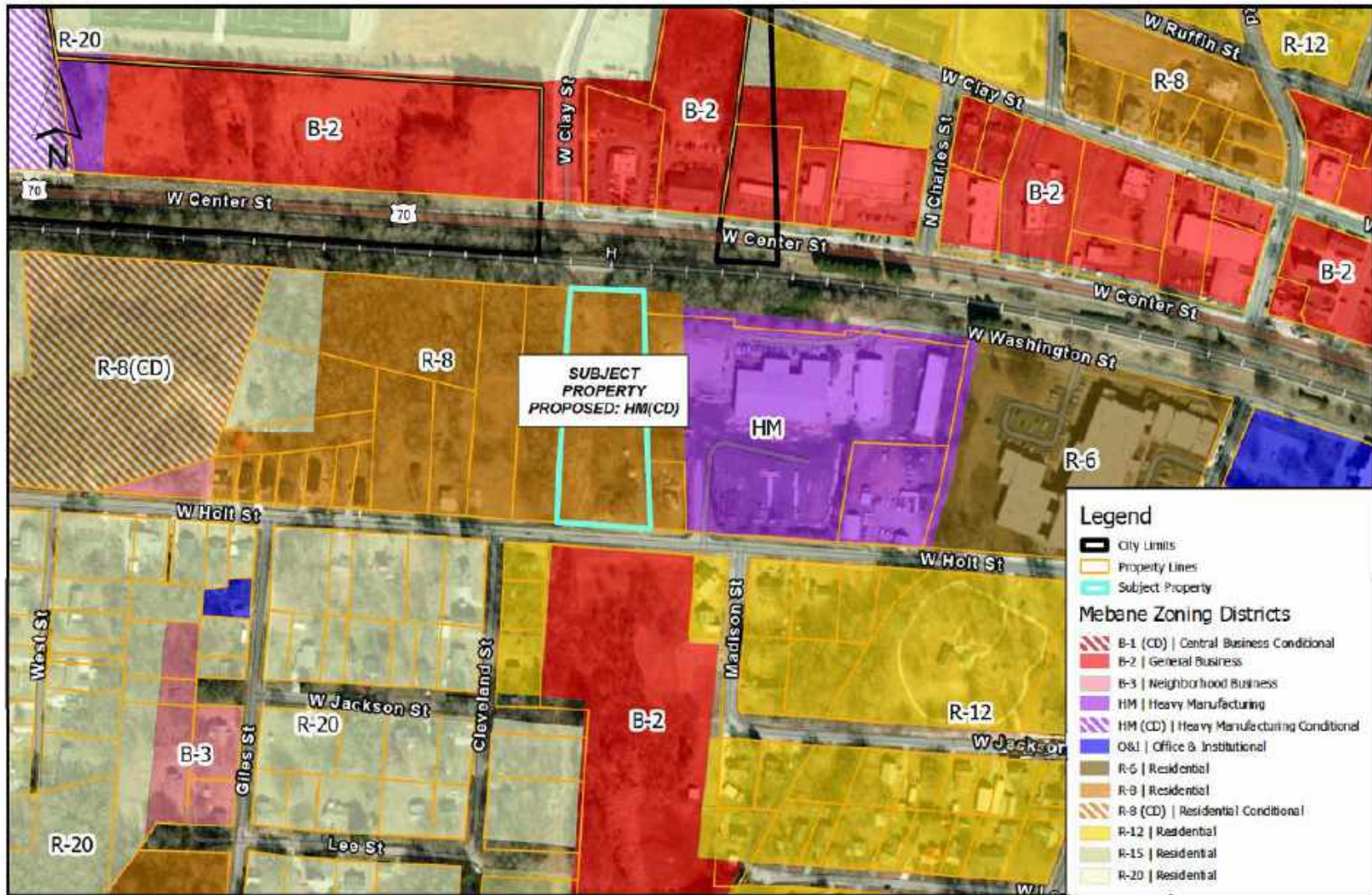
STAFF RECOMMENDATION PAGE 7

ZONING REPORT

EXISTING ZONE	R-8 Residential
REQUESTED ACTION	HM(CD) (Heavy Manufacturing Conditional District)
CONDITIONAL ZONE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
CURRENT LAND USE	Single-Family Residence
PARCEL SIZE	+/- 2.048 acres
PROPERTY OWNERS	Norris Family 2 LLC 10201 Industrial Drive Pineville, NC 28134 GPIN: 9815840394
LEGAL DESCRIPTION	Request to rezone a +/- 2.048-acre parcel (GPIN 9815840394), located at 506 West Holt Street, from R-8 to HM(CD) to allow for Outdoor Storage by Norris Family 2 LLC.
AREA ZONING & DISTRICTS	The parcels directly north of the subject property are zoned B-2 General Business and are separated by railroad tracks and US-70. The properties to the west are zoned R-8 residential. The properties to the east are zoned R-8, Residential and HM, Heavy Manufacturing. The parcel zoned HM is the current site of The Building Center. To the south of the proposed site on the other side of West Holt Street is a vacant B-2 General Business parcel and adjacent R-12, Residential parcels. There are also parcels zoned R-20, Residential located southwest of the proposed site on the west side of Cleveland St.
SITE HISTORY	The property is developed with a single-family residence that was constructed in 1930. There are no records of any prior land use.

STAFF ANALYSIS

CITY LIMITS?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
PROPOSED USE BY-RIGHT?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
SPECIAL USE?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
EXISTING UTILITIES?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
POTENTIAL IMPACT OF PROPOSED ZONE	<p>While the surrounding properties are mostly residential, the proposed use of the property for outdoor storage of construction materials associated with the existing adjacent business, The Building Center, is not anticipated to have a significant impact on those properties and will have no new access to West Holt Street. The adjacent property where the Building Center is located has been an industrial property since 2000, if not earlier.</p> <p>The proposed sidewalk improvement will improve multimodal transportation opportunities in concordance with the Mebane Comprehensive Transportation Plan.</p>



**CITY OF MEBANE
ZONING MAP**

**CONDITIONAL REZONING
THE BUILDING CENTER**

1 inch = 300 feet

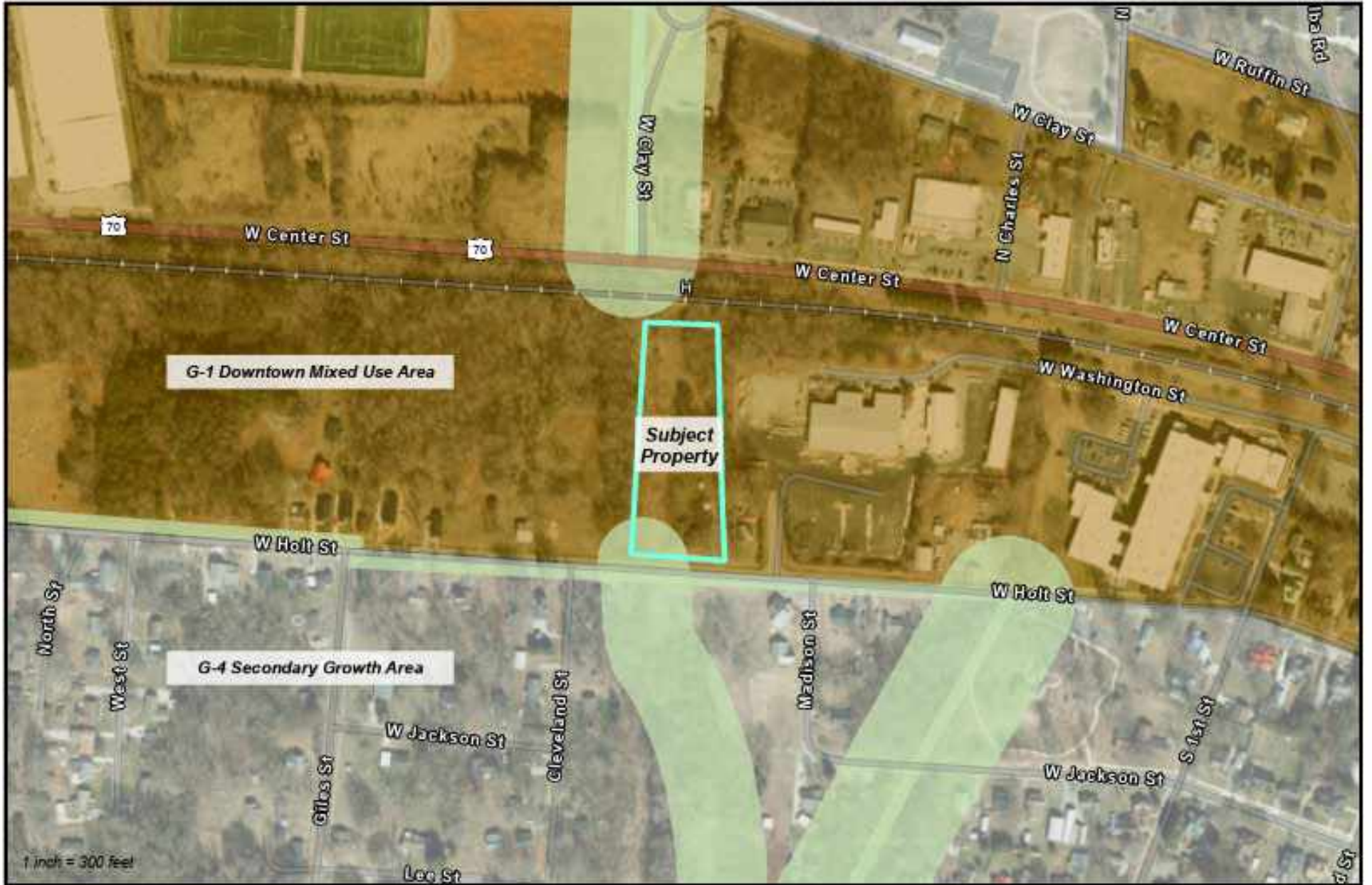
DATE: 5/29/2024

DRAWN BY: RG

LAND USE REPORT

EXISTING LAND USE	Residential
PROPOSED LAND USE & REQUESTED ACTION	The applicant is requesting a conditional rezoning to HM(CD) to allow the +/- 2.048 acre parcel (GPIN 9815840394), located at 506 West Holt Street, to be utilized for outdoor storage, including a construction material laydown yard, by the adjacent industrial business, the Building Center.
PROPOSED ZONING	HM(CD), Heavy Manufacturing Conditional District
PARCEL SIZE	+/- 2.048 acres
AREA LAND USE	The area is primarily single-family residential, however many of the lots are vacant. The railroad and US-70 run directly north of the subject property. The adjacent property to the east is the current location of the Building Center. There is also an auto sales lot on the east side of the Building Center.
ONSITE AMENITIES & DEDICATIONS	The applicant has proposed a 5' sidewalk on the adjacent portion of W Holt Street.
CONDITIONAL ZONE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
DESCRIPTION OF PROPOSED CONDITIONS	The applicant is requesting that the required landscape buffers on the west, south, and southeast sides of the property be reduced to a minimum of 20 feet. Pursuant to the requirements of Section 6-4 of the Mebane UDO, a 125-foot buffer would be required from the adjacent residential property to the east and a 70-foot buffer would be required from the adjacent vacant (residentially-zoned) property on the west side of the subject property. Part of the reductions are caused by a 68' Duke Energy easement and a 20' City of Mebane sewer easement.

CONSISTENCY WITH <i>MEBANE BY DESIGN</i> STRATEGY	
LAND USE GROWTH STRATEGY DESIGNATION(S)	G-1 Downtown Mixed-Use
OTHER LAND USE CONSIDERATIONS	
<i>MEBANE BY DESIGN</i> GOALS & OBJECTIVES SUPPORTED	
<i>MEBANE BY DESIGN</i> GOALS & OBJECTIVES <u>NOT</u> SUPPORTED	



UTILITIES REPORT

AVAILABLE UTILITIES	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
PROPOSED UTILITY NEEDS	The proposed use does not require any utilities. The existing water service to the residence will be abandoned when the home is removed.
UTILITIES PROVIDED BY APPLICANT	None.
MUNICIPAL CAPACITY TO ABSORB PROJECT	The City has adequate water & sewer supply to meet the domestic and fire flow demands of the project.
CONSISTENCY WITH MEBANE LONG RANGE UTILITY PLAN?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
ADEQUATE STORMWATER CONTROL?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <i>Water quality treatment will be evaluated with construction drawings.</i>
INNOVATIVE STORMWATER MANAGEMENT?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
TRANSPORTATION NETWORK STATUS	
CURRENT CONDITIONS	The subject property is located on the north side of West Holt Street, a two-lane undivided road maintained by the NCDOT. The average daily traffic volume for this section of W. Holt Street was 1,600 in 2023. NCDOT reports a high Section Safety Score in 2023 for the section West Holt St. that is adjacent to the proposed site, with a total score of 0 out of 100, the best score possible. In that section there was 1 motor accident which resulted in property damage and no injuries.
TRAFFIC IMPACT ANALYSIS REQUIRED?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
DESCRIPTION OF RECOMMENDED IMPROVEMENTS	No road improvements are required. The proposed development will not have direct access onto Holt Street and will instead be accessed from the Building Center's current driveways. The driveway currently utilized by the resident at 500 W Holt Street is located on the subject property. The applicant has agreed to relocate the driveway to be within the bounds of 500 W Holt Street as part of this project. Both the existing driveway and the proposed relocation are shown on the submitted site plan.
CONSISTENCY WITH THE MEBANE BICYCLE AND PEDESTRIAN TRANSPORTATION PLAN?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
MULTIMODAL IMPROVEMENTS PROVIDED BY APPLICANT?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
DESCRIPTION OF MULTIMODAL IMPROVEMENTS	The applicant proposes to provide a 5' concrete sidewalk along the property's frontage on West Holt Street.

STAFF RECOMMENDATION

STAFF RECOMMENDATION	<input checked="" type="checkbox"/> APPROVE <input type="checkbox"/> DISAPPROVE
STAFF SPECIAL USE FINDING	<input type="checkbox"/> CONSISTENT <input type="checkbox"/> NOT CONSISTENT.....WITH <i>MEBANE BY DESIGN</i>
RATIONALE	The proposed development “The Building Center” is consistent with the guidance provided within Mebane By Design, the Mebane Comprehensive Land Development Plan and is an expansion of an existing industrial use.



Technical Memo

Date: 6-4-24

From: Franz Holt, City Engineer

To: Ashley Ownbey, Development Director

CC: Johnathan Sossamon, PE

Subject: The Building Center on West Holt Street

The Engineering Department has completed its review of the conditional rezoning alternative site plan by Jonathan Sossamon. Technical review comments are as follows:

- A. The expansion includes a gravel area for laydown of stock.
- B. A sidewalk is proposed along the road frontage.
- C. Water service is to be abandoned with home to be removed.
- D. Due to down stream flooding water quantity restrictions will likely be required and reviewed with construction drawings. Treatment of runoff will be required if exceeding 1 acre disturbance with greater than 24% impervious.
- E. A driveway is to be relocated to the adjacent residential property.
- F. Access to the laydown area will be through the existing business.



AGENDA ITEM #6B

RZ 24-06

Conditional Rezoning – Saddle Club Road Subdivision

Presenter

Ashley Ownbey, Development Director

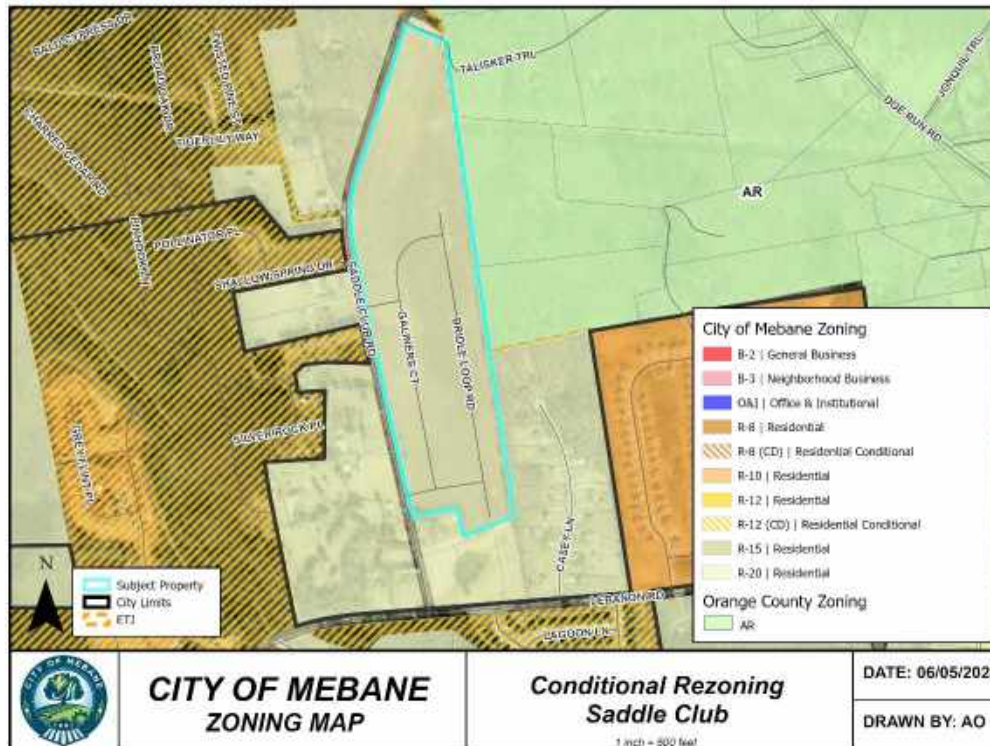
Applicant

Slippery Elm Properties, LLC
PO Box 90427
Raleigh, NC 27675

Public Hearing

Yes No

Zoning Map



Property

Unaddressed
Orange County
GPIN: 9826612172

Proposed Zoning

R-12(CD)

Current Zoning

R-20

Size

+/- 43.32 acres

Surrounding Zoning

R-20, R-12 (CD)
AR (Orange County)

Surrounding Land Uses

Single-Family Residential, Forested, Vacant

Utilities

Present

Floodplain

No

Watershed

Yes

City Limits

No

Application Brief

See Planning Project Report for more details.

Recommendations	
Technical Review Committee:	The Technical Review Committee (TRC) has reviewed the site plan ten times, and the applicant has revised the plan to reflect the comments.
Planning Staff:	The proposed development “Saddle Club Road” is consistent with the guidance provided within <i>Mebane By Design</i> , the Mebane Comprehensive Land Development Plan.
Planning Board:	At their June 10 meeting, the Planning Board’s vote ended in a 3-3 tie due to the absence of three members. Ms. Semonite made a motion to deny the request due to lack of harmony with the surrounding area, which Ms. Pettiford seconded. The vote was split with Semonite, Pettiford, and Taylor supporting the motion to deny the request and Cannell, Scott, and Chapman opposing the motion.
Zoning & Land Use Report	
Jurisdiction:	Mebane Extraterritorial Jurisdiction
Proposed Use By-Right (Yes/No):	No
Type of Rezoning Request:	Conditional
Special Use Request (Yes/No):	No
Consistency with Mebane By Design (Yes/No):	Yes
Utilities Report	
Available Utilities (Yes/No):	Yes
Adequate Stormwater Control (Yes/No):	Yes
Innovative Stormwater Control (Yes/No):	No
Consistency with Long-Range Utility Plan (Yes/No):	Yes
Transportation Report	
Traffic Impact Analysis Required (Yes/No):	Yes
Multi-Modal Improvements (Yes/No):	Yes
Consistency with Bike/Ped Transportation Plan (Yes/No):	Yes

Summary

Slippery Elm Properties, LLC is requesting approval to conditionally rezone a +/- 43.32-acre property from R-20, Residential District to R-12 (CD), Residential Conditional District, to allow for a residential cluster subdivision of 110 single-family homes and a public park. The property is located in Orange County outside of City Limits within the Mebane Extraterritorial Jurisdiction (ETJ). Annexation of the property is required before connection to City utilities. The applicant has the property under contract to purchase, contingent upon approval of the conditional rezoning request.

The proposed on-site amenities and dedications include the following:

- The construction of all internal streets with 5’ sidewalks.
- The construction of a 5’ concrete sidewalk along Saddle Club Road, with crosswalks as shown on the site plan and across Lebanon Road.
- The construction and dedication of a +/- 6.05-acre public park with a soccer field, six pickleball courts, 8’ walking trail, restrooms, parking lot, and stormwater control measure constructed by the applicant. The public park dedication shows space for future facilities including four additional pickleball courts and a playground and/or parking lot expansion. The public park dedication and amenities have been reviewed by City staff and are recommended by the Mebane Recreation and Parks Director.

The following conditions are proposed with the conditional rezoning request:

Proposed Conditions of Zoning District	Mebane UDO Requirements
The applicant is requesting a 20’ rear setback for Lots 6 – 14 and Lot 60 and a minimum 50’ lot width for all lots. The lots with reduced rear setbacks abut landscape buffers.	Table 4-2-1 of the Mebane UDO requires a 25’ rear setback and 65’ lot width for homes in the R-12 Zoning District. Reduction of the lot width is anticipated with residential cluster subdivisions. The lots with reduced rear setbacks are adjacent to landscape buffers.
The applicant is proposing to dedicate +/- 6.05 acres of land for public recreation area. The site plan shows +/- 7.18 acres of qualifying private common open space. The amount of land shown as public recreation area and private open space totals +/- 13.23 acres.	Pursuant to Section 6-8 of the Mebane UDO, the applicant is required to provide 3.16 acres of public recreation area and 10.14 acres of private open space. This totals to 13.3 acres.

A traffic impact analysis (TIA) was conducted for the development. No improvements to public roadways are required. All study area intersections and proposed driveways are expected to operate at acceptable levels of service at existing and future conditions.

Financial Impact

The developer will be required to make the proposed improvements at his own expense.

Recommendation

The Planning staff has reviewed the request for harmony with the zoning of the surrounding area and consistency with the City's adopted plans and recommends approval of the rezoning.

Suggested Motion

1. Motion to approve the R-12(CD) zoning as presented.

2. Motion to find that **the application is consistent** with the objectives and goals in the City's 2017 Comprehensive Land Development Plan *Mebane By Design*. The request:
 - Is for a property within the City's G-4 Secondary Growth Area and is "...generally residential...in nature..." (Mebane CLP, p. 66);

 - Ensures the integration of a community facility into a new development to reduce distances to parks, consistent with Growth Management Goal 1.4 (p. 17 & 83);

 - Supports park, greenway, and open space expansion in a developing area, prioritizing connectivity between locations, consistent with Open Space and Natural Resource Protection Goal 4.3 (p. 17, 89, & 90); and,

 - Contributes to an emerging pedestrian and bicycle network, as required by the City's *Bicycle and Pedestrian Transportation Plan*.

OR

3. Motion to **deny** the R-12(CD) rezoning as presented due to a lack of
 - a. Harmony with the surrounding zoning

OR

 - b. Consistency with the objectives and goals in the City's 2017 Comprehensive Land Development Plan *Mebane By Design* or any of the City's other adopted plans.

Attachments

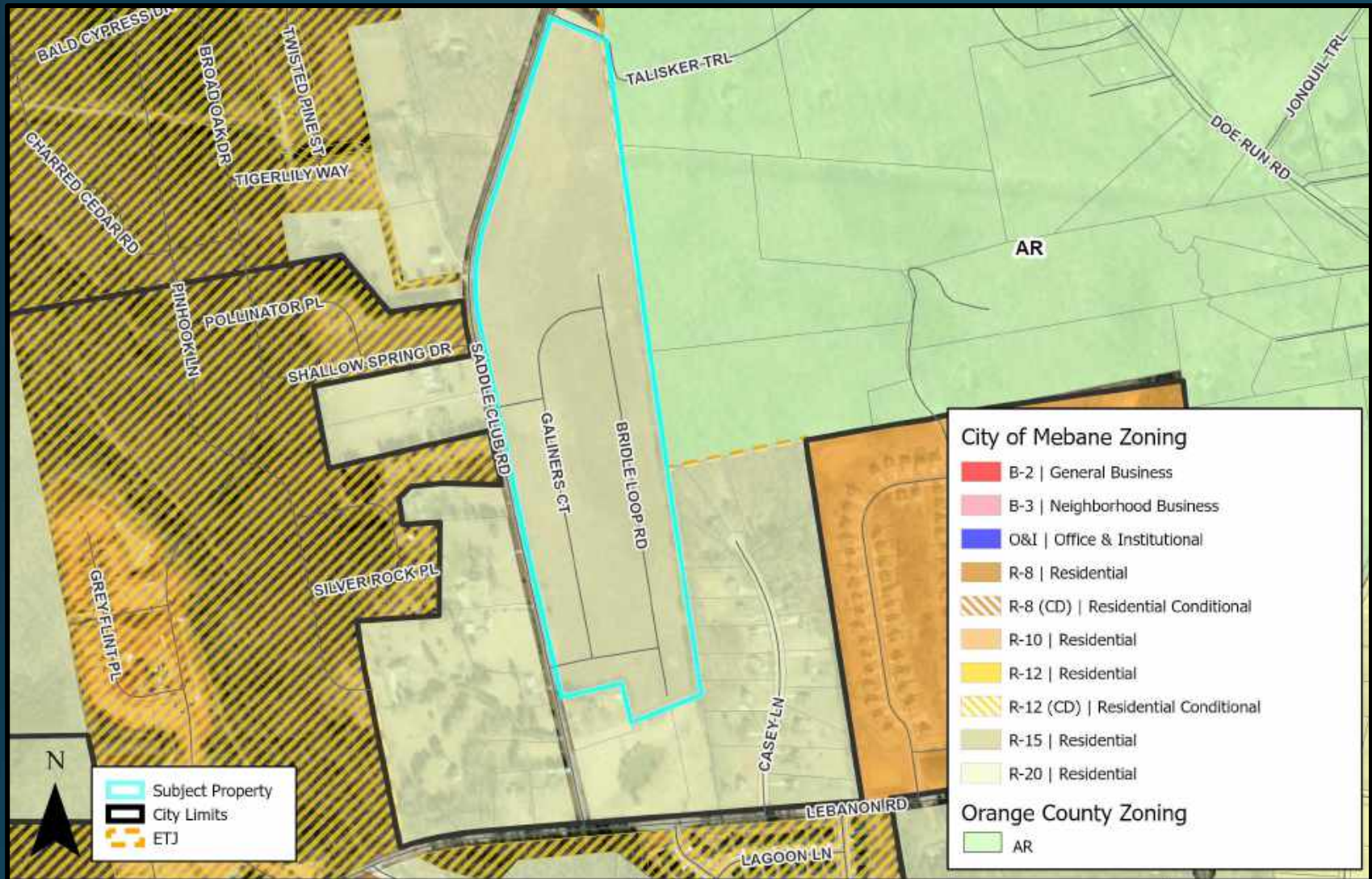
1. Preliminary Presentation Slides
2. Zoning Amendment Application
3. Zoning Map
4. Site Plan – [click here to access.](#)
5. Planning Project Report
6. Technical Memorandum – City Engineering Review
7. Traffic Impact Analysis – [click here to access.](#)
 - a. VHB Review of TIA
8. Recommendation from Recreation & Parks Director



Ashley Ownbey, Development Director

Rezoning Request: R-20 to R-12 (CD)
by Slippery Elm Properties, LLC





Saddle Club Subdivision

Conditional Rezoning

- Request by Slippery Elm Properties, LLC
- +/- 43.32 acres
- Existing zoning: R-20
- Rezoning Request: R-12 (CD)



CITY OF MEBANE
ZONING MAP

Conditional Rezoning
Saddle Club

DATE: 06/05/2024

DRAWN BY: AO

1 inch = 600 feet

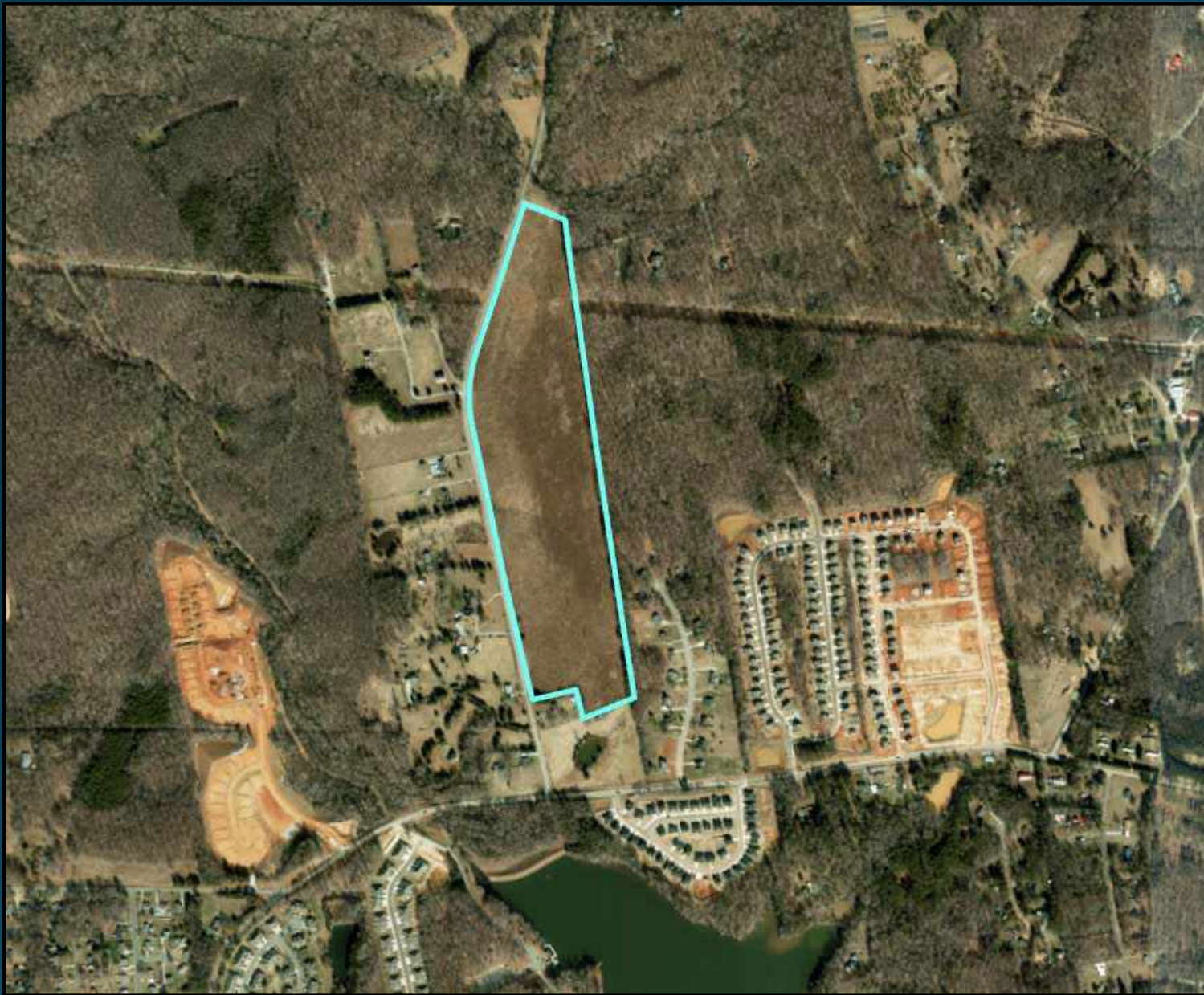


Saddle Club Subdivision

Conditional Rezoning

- Orange County, Mebane ETJ
- Annexation required before connection to City utilities.

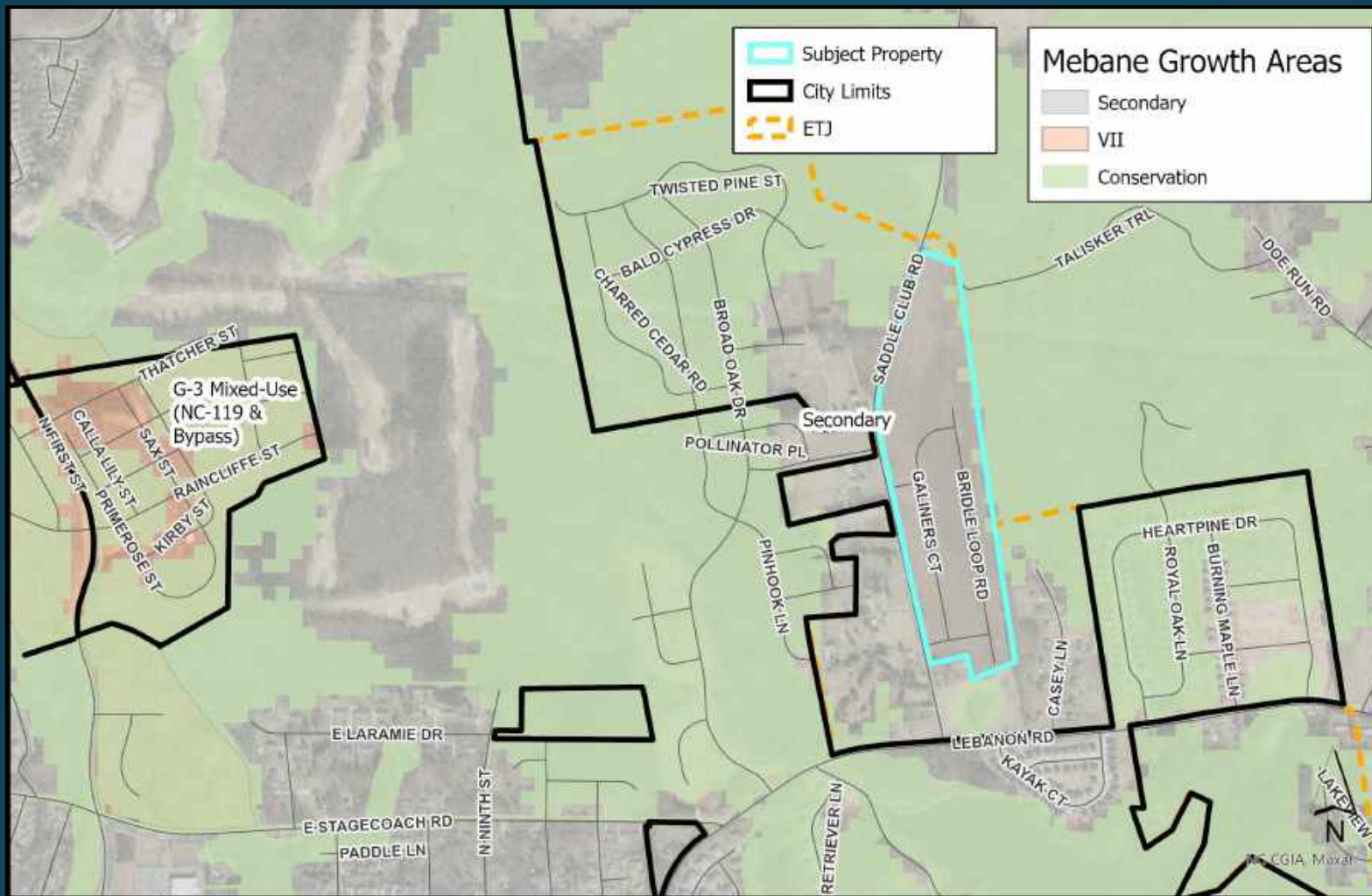




Saddle Club Subdivision Conditional Rezoning

- Vacant
- Surrounding uses include:
 - Single-Family Residential
 - Forested
 - Vacant





CITY OF MEBANE
Future Growth Area Map

Conditional Rezoning
Saddle Club

1 inch = 1,000 feet

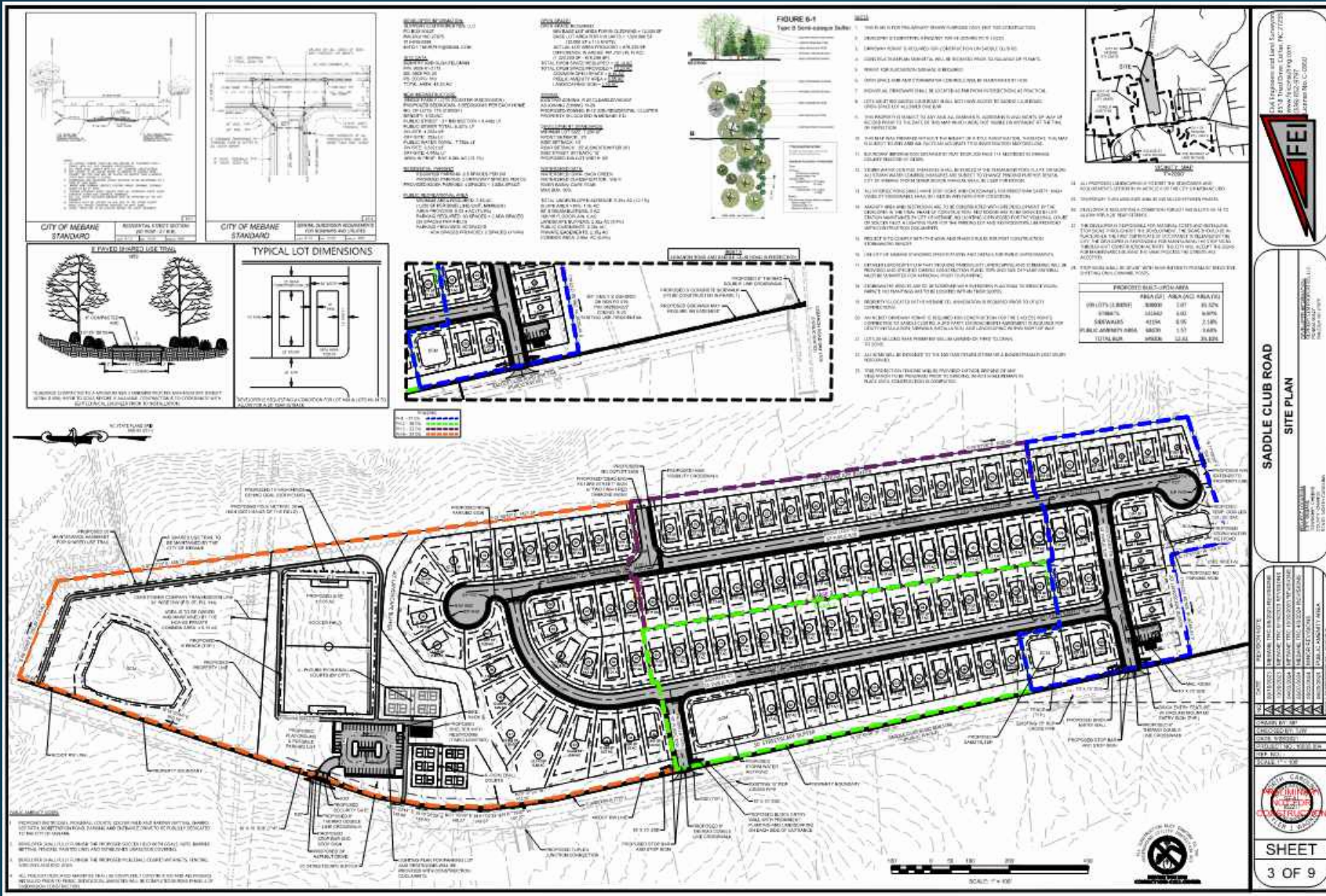
DATE: 06/05/24

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Saddle Club Subdivision
 Conditional Rezoning

Mebane By Design, G-4 Secondary Growth Area



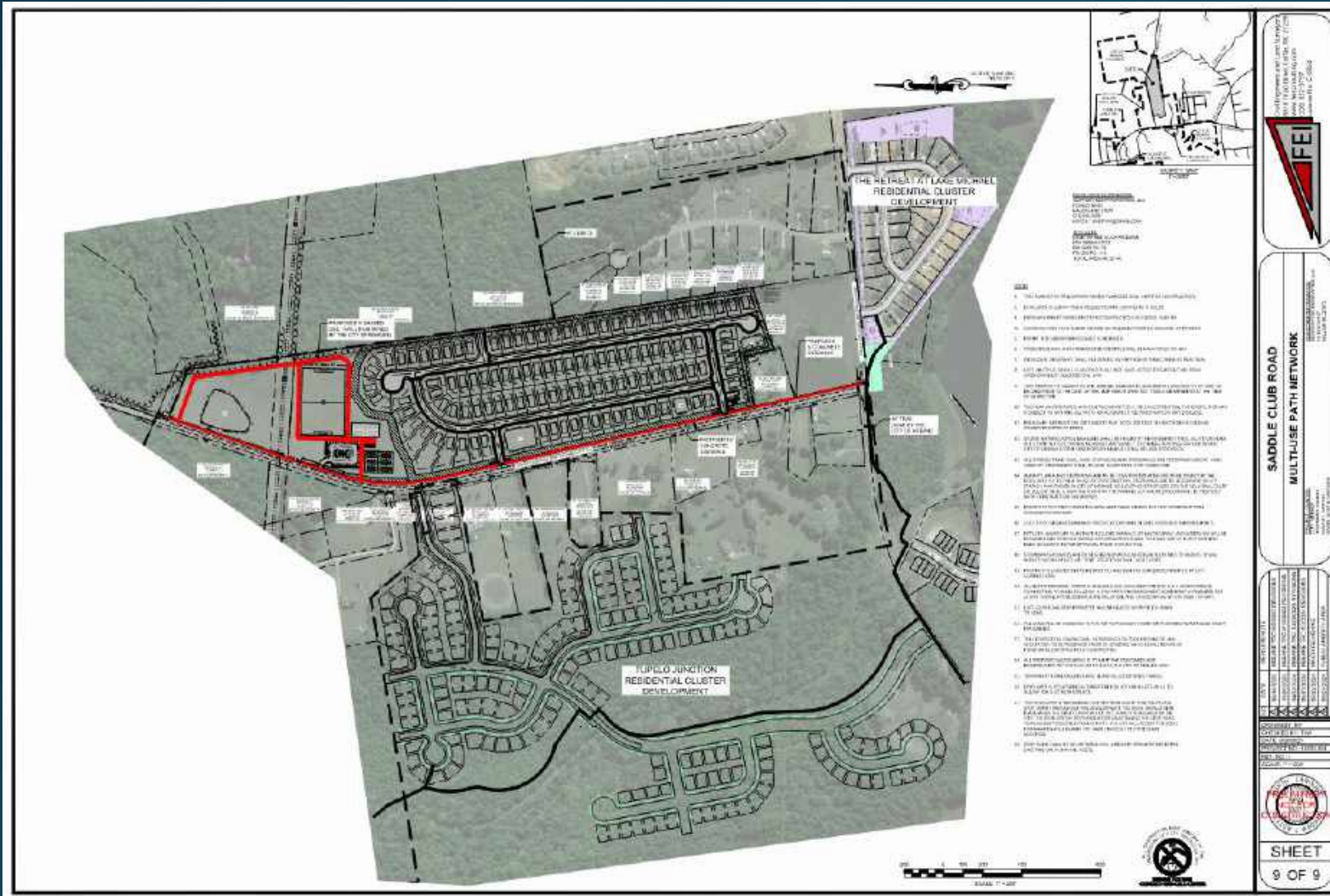


Saddle Club Subdivision Conditional Rezoning

- Residential Cluster Subdivision:
 - 110 single-family homes
 - +/- 6.05-acre public park
- Conditions:
 - Rear setback reduced to 20' for certain lots.
 - Minimum lot width of 50'
 - +/- 6.05 acres of public recreation area
 - +/- 7.18 acres of private common open space
- No public roadway improvements required of TIA.



Saddle Club Subdivision Conditional Rezoning



Public Amenities:

- Soccer Field
- Pickleball Courts
- Restrooms
- 8' walking trail

Multimodal Connections:

- 5' sidewalk along Saddle Club
- Connection to Lake Michel Connector
- Crossing of Lebanon Road





Applicant Presentation



SADDLE CLUB ROAD SUBDIVISION

Mebane City Council

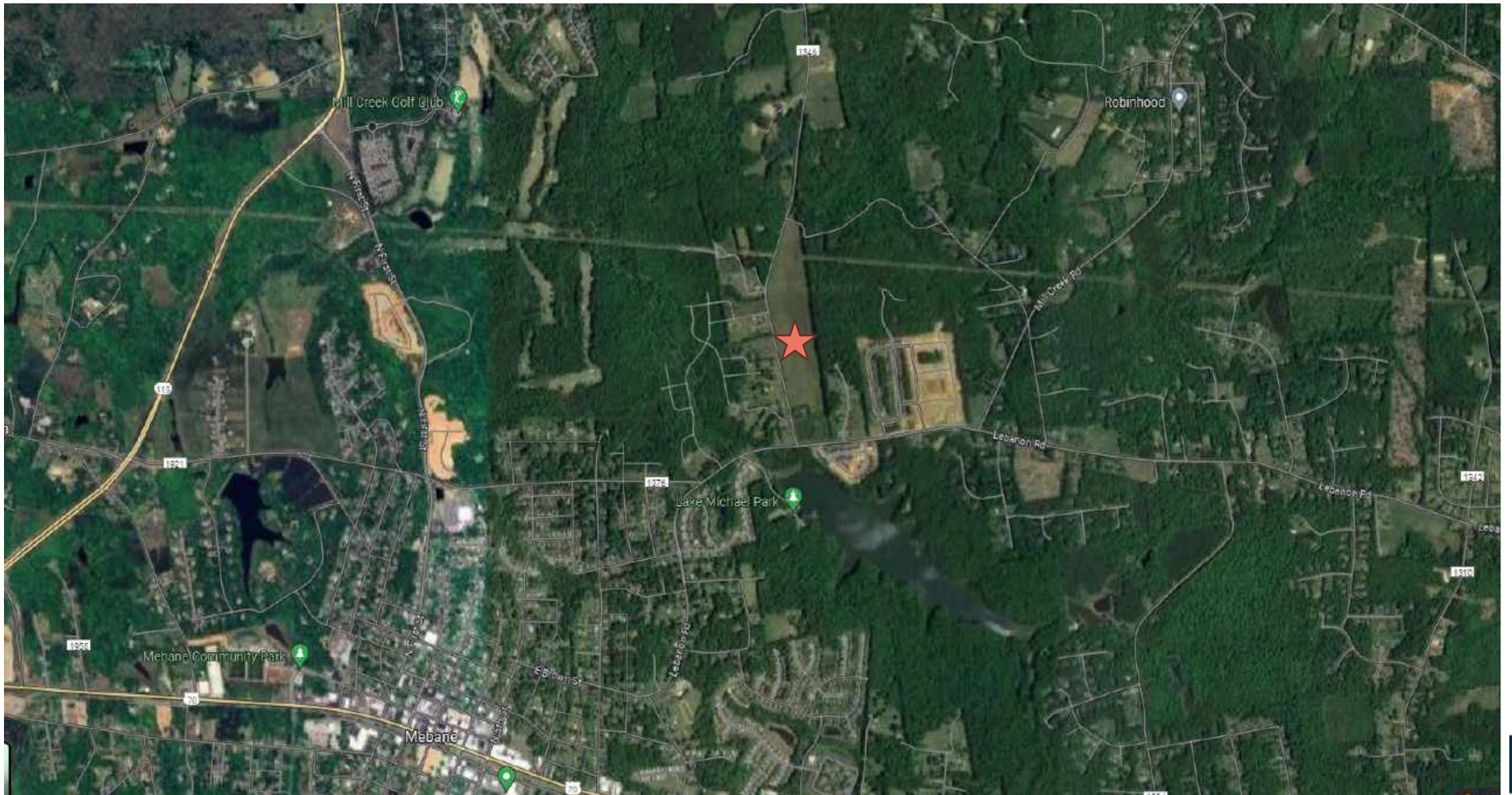
July 1, 2024

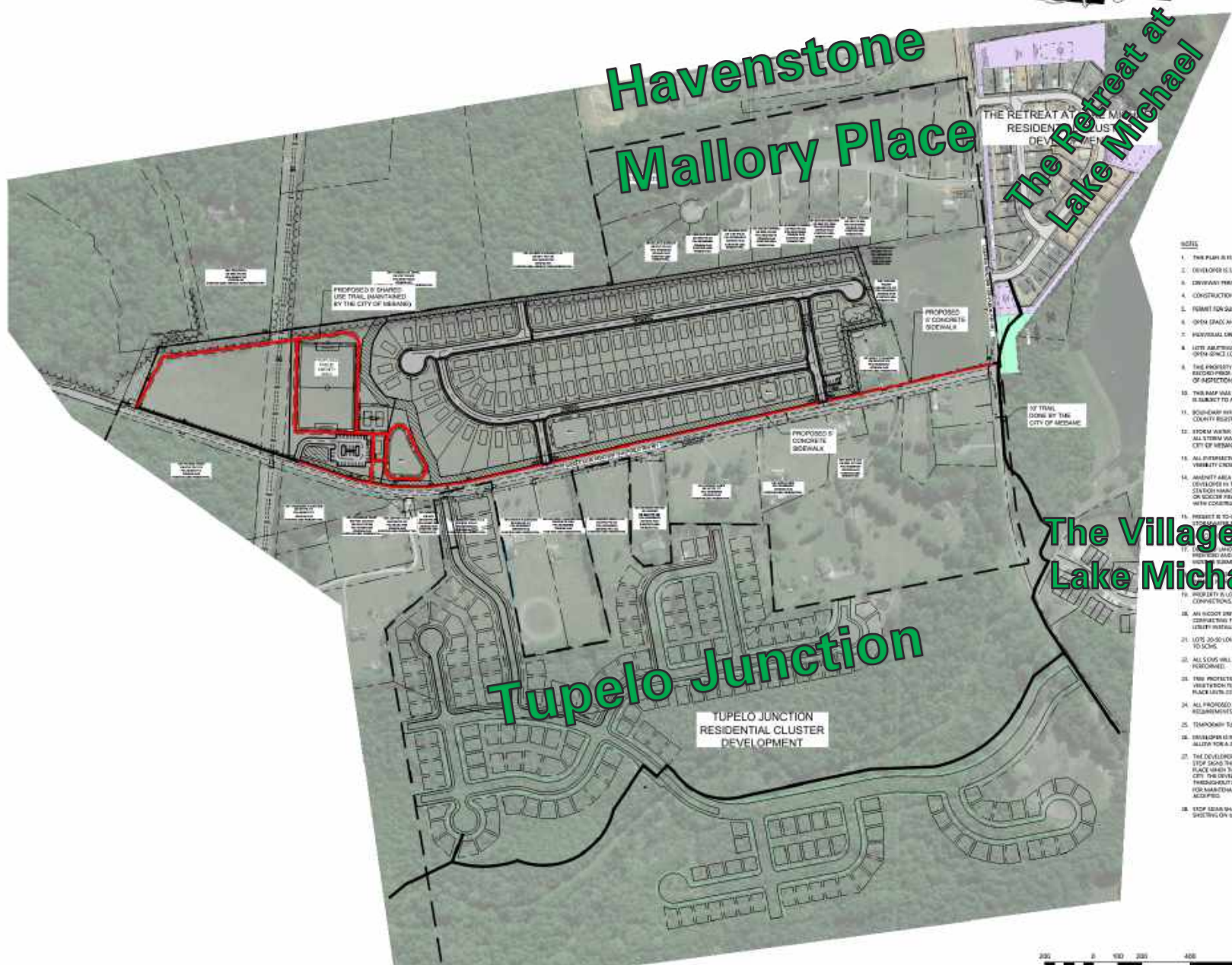


NATURE OF REQUEST

- 43.32 Acre Site
- Rezone to R-12(CD)
- Conditional Zoning = Site Plan Specificity
- Annexation will be required
- Proposed Number of Homes is 110
- Proposal includes Park to be Publicly Dedicated
- Park consists of pickleball courts, soccer field, restroom facility, 8' wide walking trail and parking area







Havenstone
Mallory Place

The Retreat at
Lake Michael

Tupelo Junction



DATE: 02/15/2024
 DRAWN BY: J. J. COLLIER
 CHECKED BY: J. J. COLLIER
 PROJECT NO.: 16032-004
 SHEET NO.: 9 OF 9
 SCALE: 1" = 200'

- NOTES:**
1. THIS PLAN IS FOR PRELIMINARY REVIEW PURPOSES ONLY, NOT FOR CONSTRUCTION.
 2. DEVELOPER IS SUBMITTING A REQUEST FOR RE-ZONING TO R-100Z.
 3. DRIVEWAY PERMIT IS REQUIRED FOR CONSTRUCTION ON SADDLE CLUB RD.
 4. CONSTRUCTION PLAN SUBMITTAL WILL BE REQUIRED UNDER THE ORDINANCE OF PERMITS.
 5. PERMIT FOR SUBVERSION SERVICE IS REQUIRED.
 6. OPEN GRADE AND AND STORMWATER CONTROL WILL BE MAINTAINED BY HOA.
 7. PAVED DRIVEWAYS SHALL BE LOCATED AS FAR FROM INTERSECTIONS AS PRACTICAL.
 8. LOT 24 IMPROVEMENTS SHALL BE LOCATED AS FAR FROM INTERSECTIONS AS PRACTICAL.
 9. THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS, AGREEMENTS AND RIGHTS-OF-WAY OF RECORD PRIOR TO THE DATE OF THIS MAP WHICH WOULD BE USABLE OR APPLICABLE AT THE TIME OF ACQUISITION.
 10. THIS MAP WAS PREPARED WITHOUT THE BENEFIT OF A TITLE INVESTIGATION, THEREFORE THIS MAP IS SUBJECT TO ANY AND ALL FACTS AND CIRCUMSTANCES THAT MAY BE DISCOVERED.
 11. BOUNDARY INFORMATION OBTAINED BY PLAT BOOK 28 PAGE 114 RECORDED IN ORANGE COUNTY REGISTER OF DEEDS.
 12. STORM WATER CONTROL MEASURES SHALL BE PROVIDED IN THE PRIMARY FACILITY IF IT OR OTHER ALL SYSTEM WATER CONTROL MEASURES ARE SUBJECT TO CHANGE THROUGH FUTURE DESIGN CITY OF MESAHA STORM WATER DESIGN MANUAL SHALL BE USED FOR DESIGN.
 13. ALL INTERSECTIONS SHALL HAVE STOP SIGNS AND CROSSINGS FOR PEDESTRIAN SAFETY. HIGH VISIBILITY CROSSINGS SHALL BE USED IN ANY NON-STOP CROSSING.
 14. ANY AREA AND INTERSECTIONS ARE TO BE CONSTRUCTED WITH SITE DEVELOPMENT IN THE DEVELOPER'S OWN HANDS. THE CITY OF MESAHA, OR THROUGH A CONTRACTOR, SHALL NOT BE RESPONSIBLE FOR THE DESIGN OR CONSTRUCTION OF ANY INTERSECTIONS OR DRIVEWAYS. THE CITY OF MESAHA SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ANY INTERSECTIONS OR DRIVEWAYS.
 15. PRESENT 10-FOOT-1/2" WITH THE DRIVE AND PHASE 2 SHALL BE FOR PORT CONSTRUCTION. THE DRIVEWAY SHALL BE LOCATED AS FAR FROM INTERSECTIONS AS PRACTICAL.
 16. ANY AND ALL INTERSECTIONS SHALL BE CONSTRUCTED WITH SITE DEVELOPMENT IN THE DEVELOPER'S OWN HANDS. THE CITY OF MESAHA, OR THROUGH A CONTRACTOR, SHALL NOT BE RESPONSIBLE FOR THE DESIGN OR CONSTRUCTION OF ANY INTERSECTIONS OR DRIVEWAYS. THE CITY OF MESAHA SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ANY INTERSECTIONS OR DRIVEWAYS.
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**SADDLE CLUB ROAD
MULTI-USE PATH NETWORK**

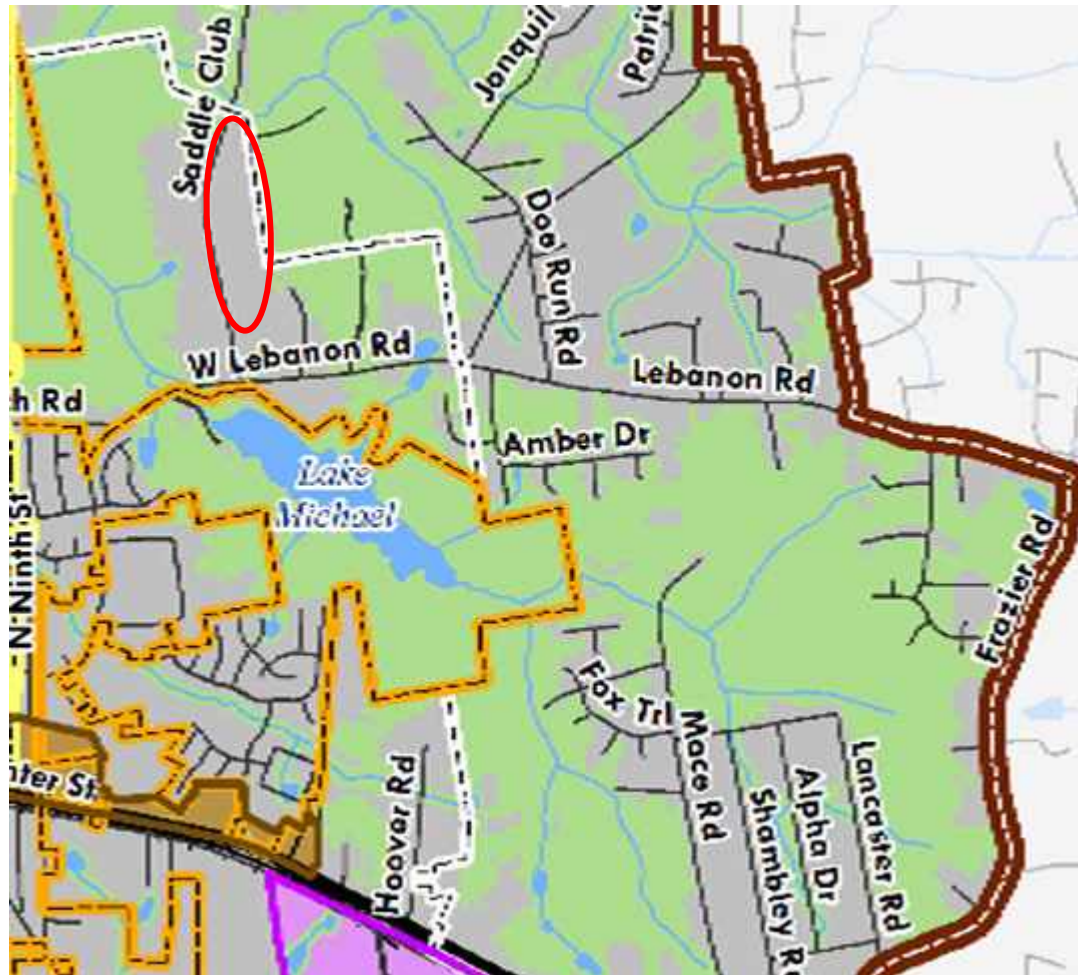
DESIGNED BY: J. J. COLLIER
 CHECKED BY: J. J. COLLIER
 PROJECT NO.: 16032-004
 SHEET NO.: 9 OF 9
 SCALE: 1" = 200'

NO.	DATE	REVISION NOTE
1	02/15/2024	ISSUE AND APPROVE FOR CONSTRUCTION
2	02/15/2024	ISSUE AND APPROVE FOR CONSTRUCTION
3	02/15/2024	ISSUE AND APPROVE FOR CONSTRUCTION
4	02/15/2024	ISSUE AND APPROVE FOR CONSTRUCTION
5	02/15/2024	ISSUE AND APPROVE FOR CONSTRUCTION
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27	02/15/2024	ISSUE AND APPROVE FOR CONSTRUCTION
28	02/15/2024	ISSUE AND APPROVE FOR CONSTRUCTION
29	02/15/2024	ISSUE AND APPROVE FOR CONSTRUCTION
30	02/15/2024	ISSUE AND APPROVE FOR CONSTRUCTION





**SHEET
9 OF 9**



MEBANE BY DESIGN



Growth Strategy Areas

	G-1, Mixed-Use
	G-1, Industrial
	G-2, Industrial
	G-2, Residential
	G-3, Mixed-Use
	G-4, Secondary Growth Area
	Conservation Area

- G4: Growth is supported via use of existing infrastructure
- Growth Management Goal 1.4 seeks to **Ensure that adequate community facilities are integrated into new development**
- Open Space & Natural Resource Protection Goal 4.3 seeks to **Support park, greenway, and open space expansion in developed and developing areas**

Consistency with Mebane By Design (Land Use)

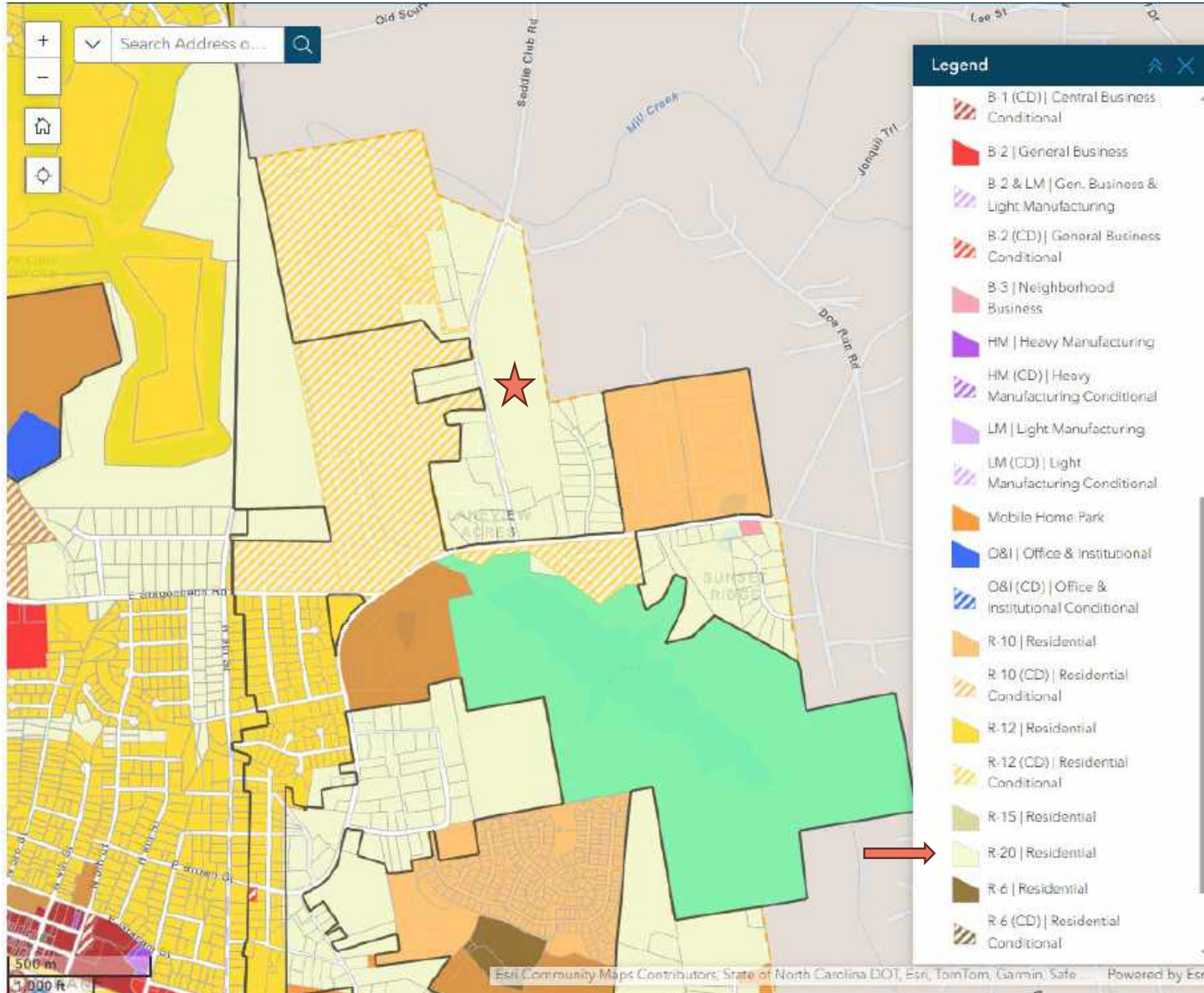
- Residential
- Placing appropriate density and housing where it can be supported by existing infrastructure
 - Sewer
 - Road improvements
 - Recreation opportunities
 - Connectivity

Consistency with Mebane By Design (Other Objectives)

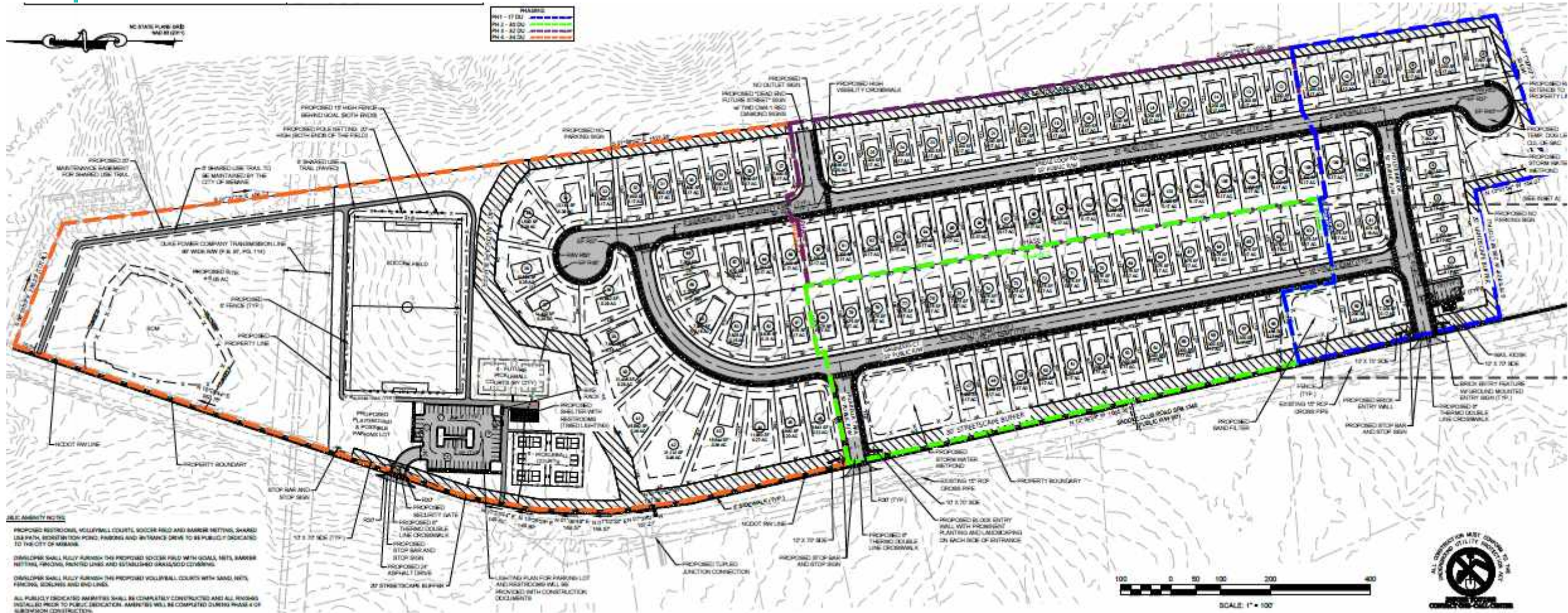
- Growth Management Goal 1.4
 - Creating an integrated park facility within the subdivision plan to serve all the residential growth in this area
- Open Space and Natural Resource Protection Goal 4.3
 - Provision of Park for City Dedication (Public Use) in location that meets a stated goal of the City for expansion of park locations
- Consistency with Mebane Bicycle and Pedestrian Transportation Plan
 - Provision of Multi Modal Improvements via sidewalks in subdivision; sidewalk along full frontage of Saddle Club Road to Lebanon Road
 - Connection to Lake Michael Park via crosswalk across Lebanon Road
 - Connection to community sidewalk network



ZONING CONTEXT



SITE PLAN



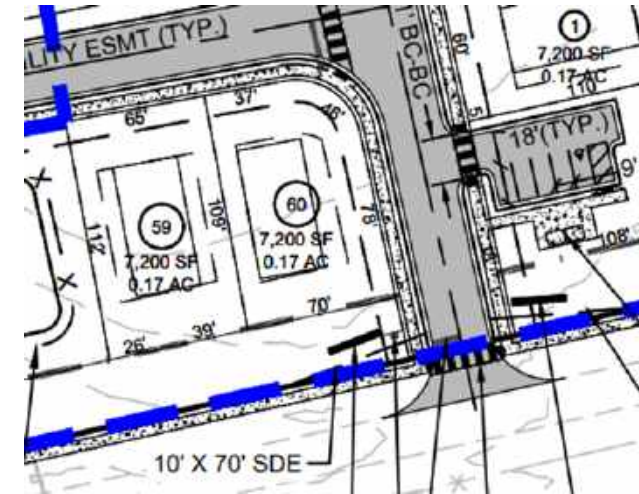
Site Plan Features

- Cluster Subdivision
- Park element for public dedication
 - Pickleball Courts
 - Soccer Field
 - 8' Walking Trails
 - On site parking
 - Restroom Facilities
- Sidewalk and Crosswalk Features
- Public Streets
- Full Perimeter Buffer
 - 30 foot Streetscape Buffer along Saddle Club
 - 20 foot Perimeter Buffer along eastern property line abutting Mallory Place
- Traffic Impact Analysis conducted and reviewed and approved by City and NCDOT
- Reviewed by TRC ten times



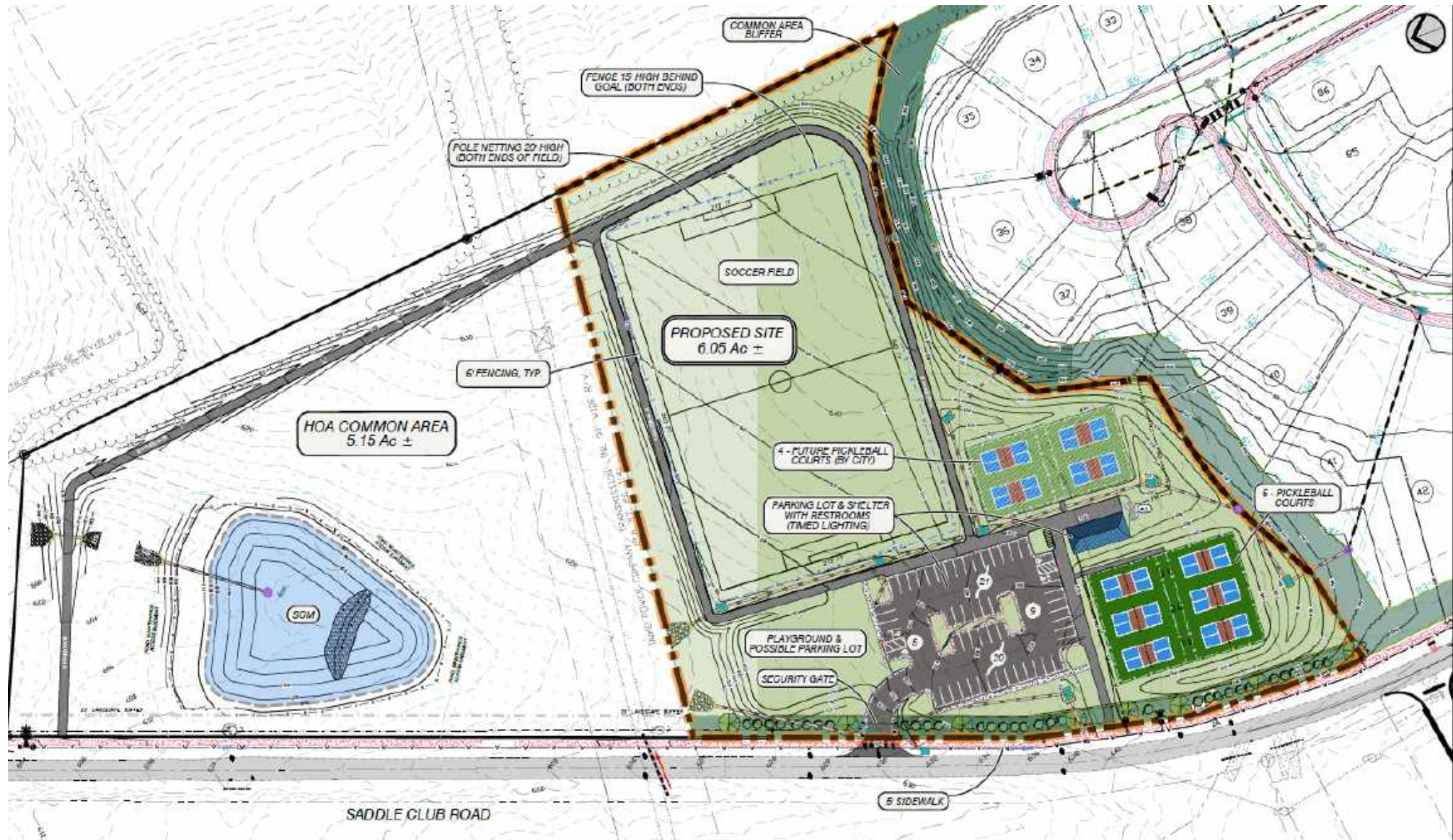
REQUESTED ZONING CONDITIONS

- Rear Yard Setbacks of 20 feet for Lots 6 through 14 and 60
 - Allows for full and consistent buffers along the backs of these Lots



- Open Space Dedications

PROPOSED CITY PARK



HOME STYLES



BUILDING COMMITMENTS

- All homes shall have a covered front porch/alcove;
-
- All homes shall have projecting eaves;
- The front façade of each home shall feature some mix of building materials to include, minimal maintenance siding, masonry, stone, or board and batten;
- Each home shall have a garage;
- Garage doors shall feature decorative paneling;
- All homes will have a main roof line with minimum pitch of 6:12;
- All homes will have a minimum of 1,500 square feet of conditioned square footage;
- Each home shall have a minimum of 1 front yard tree.

NEIGHBORHOOD OUTREACH

- Neighborhood Meeting held on June 7, 2024

CHANGES SINCE PLANNING BOARD

- Increased Size of Park Dedication
- Relocation of a Stormwater Management Facility to accomplish park increased size
- Full commitment to Pickleball Courts instead of Volleyball Courts
- Additional Architectural Commitments



APPLICATION FOR A ZONING AMENDMENT

Application is hereby made for an amendment to the Mebane Zoning Ordinance as follows:

Name of Applicant: Slippery Elm Properties, LLC

Address of Applicant: PO Box 90427, Raleigh, NC 27675

Address and brief description of property to be rezoned: 99999 Saddle Club Rd
Mebane, NC 27302, Orange County PIN # 9826612172

Applicant's interest in property: (Owned, leased or otherwise) Under contract
for ownership

*Do you have any conflicts of interest with: Elected/Appointed Officials, Staff, etc.?

Yes ___ Explain: _____ No X

Type of re-zoning requested: From R-20 to R-12 (LD)

Sketch attached: Yes X No _____

Reason for the requested re-zoning: Proposed cluster development

Signed: [Signature]

Date: 5-22-23

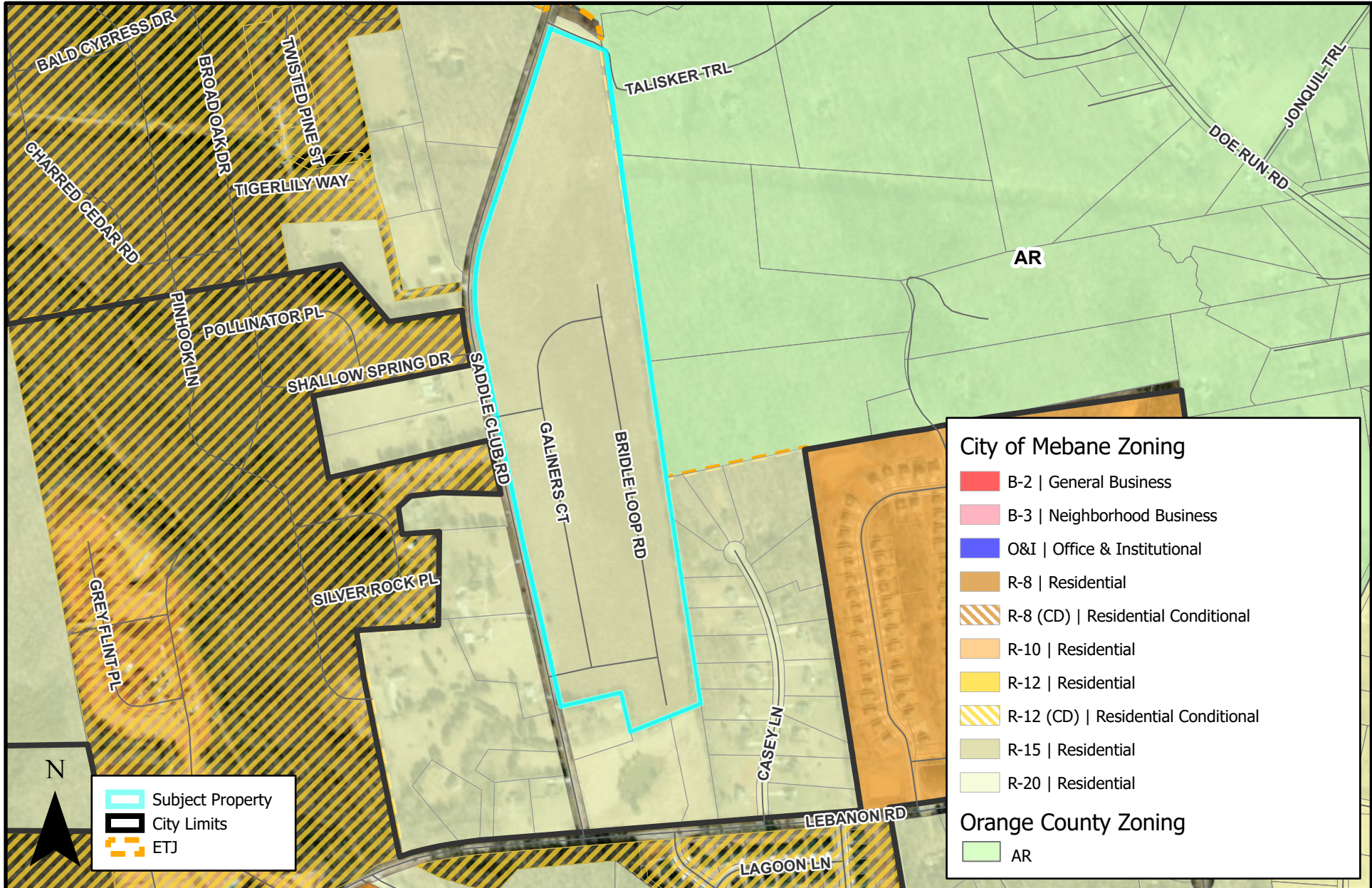
Action by Planning Board: _____

Public Hearing Date: _____ Action: _____

Zoning Map Corrected: _____

The following items should be included with the application for rezoning when it is returned:

1. Tax Map showing the area that is to be considered for rezoning.
2. Names and addresses of all adjoining property owners within a 300' radius (Include those that are across the street).
3. \$300.00 Fee to cover administrative costs.
4. The information is due 15 working days prior to the Planning Board meeting. The Planning Board meets the 2nd Monday of each month at 6:30 p.m. Then the request goes to the City Council for a Public Hearing the following month. The City Council meets the 1st Monday of each month at 6:00 p.m.



CITY OF MEBANE ZONING MAP

Conditional Rezoning Saddle Club

1 inch = 600 feet

DATE: 06/05/2024

DRAWN BY: AO

**To access the site
plan, [click here.](#)**

PLANNING PROJECT REPORT

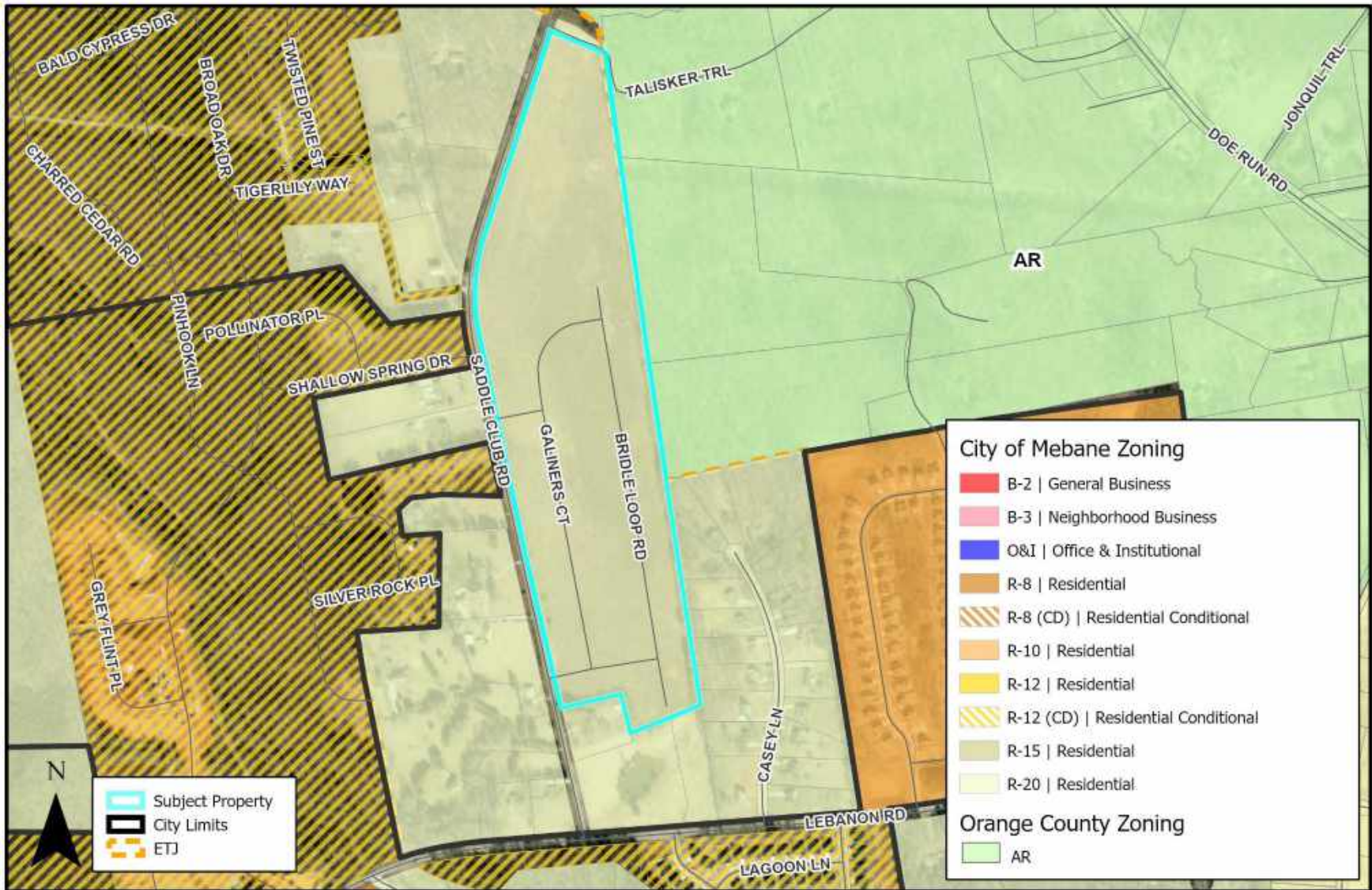
DATE	06/04/2024
PROJECT NUMBER	RZ 24-06
PROJECT NAME	Saddle Club Road Cluster Subdivision
APPLICANT	Slippery Elm Properties, LLC PO Box 90427 Raleigh, NC 27675

CONTENTS

PROJECT NAME & APPLICANT	PAGE 1
ZONING REPORT	PAGE 2
LAND USE REPORT	PAGE 4
UTILITIES REPORT	PAGE 7
STAFF RECOMMENDATION	PAGE 8

ZONING REPORT

EXISTING ZONE	R-20 (Residential District)
REQUESTED ACTION	R-12(CD) (Residential Conditional District)
CONDITIONAL ZONE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
CURRENT LAND USE	Most of the property is vacant and cleared. A power transmission line runs across the northern portion of the property.
PARCEL SIZE	+/- 43.32 acres
PROPERTY OWNERS	Dmitry Feldman Ogla Feldman 48 Long Acre Drive Huntington, NY 11743
LEGAL DESCRIPTION	Request to rezone the +/- 43.32-acre property located on Saddle Club Road (GPIN 9826612172), from R-20 to R-12 (CD) to allow for a residential cluster subdivision with 110 single-family homes and a public park by Slippery Elm Properties, LLC.
AREA ZONING & DISTRICTS	The properties across Saddle Club Road are residentially zoned R-20 and R-12 (CD). The adjacent properties to the south as well as the properties in the Mallory Place subdivision to the southeast are zoned R-20. Larger properties to the site's northeast are in unincorporated Orange County and zoned AR, Agricultural Residential.
SITE HISTORY	The property has historically been vacant and was last sold in 2005.
STAFF ANALYSIS	
CITY LIMITS?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
PROPOSED USE BY-RIGHT?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
SPECIAL USE?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
EXISTING UTILITIES?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
POTENTIAL IMPACT OF PROPOSED ZONE	The minimum lot size and density are similar to recently approved developments in the area, including Tupelo Junction, Tupelo North, The Retreat at Lake Michael, and Havenstone. The proposed zoning does introduce greater density than adjacent R-20 zoning by the City of Mebane and Agricultural Residential zoning by Orange County.



**CITY OF MEBANE
ZONING MAP**

**Conditional Rezoning
Saddle Club**

1 inch = 600 feet

DATE: 06/05/2024

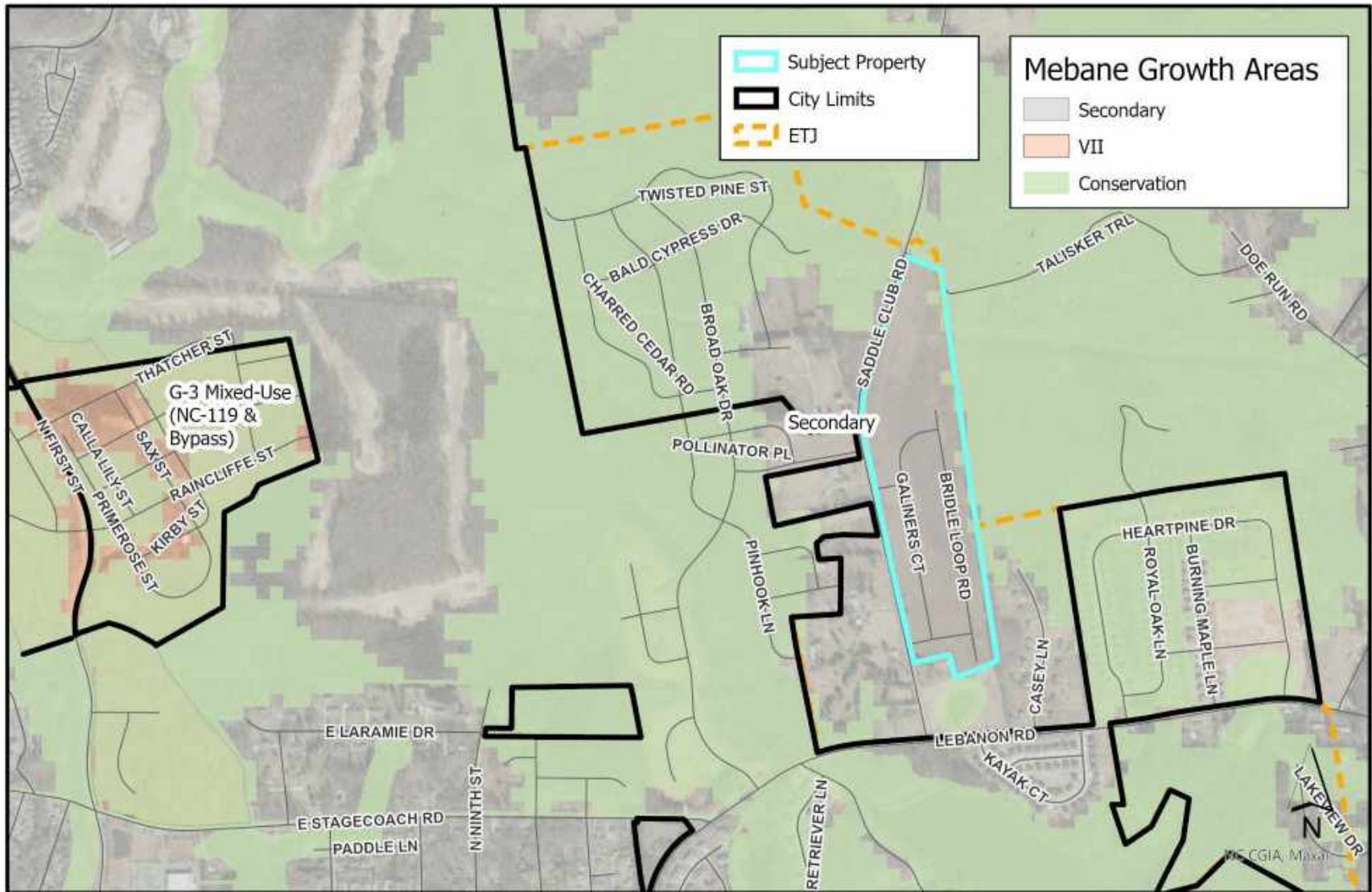
DRAWN BY: AO

LAND USE REPORT

EXISTING LAND USE	Vacant
PROPOSED LAND USE & REQUESTED ACTION	The applicant is requesting a conditionally rezone the +/- 43.32-acre property located on Saddle Club Road (GPIN 9826612172), from R-20 to R-12 (CD) to allow for a residential cluster subdivision with 110 single-family homes and a public park
PROPOSED ZONING	R-12(CD)
PARCEL SIZE	+/- 43.32 acres
AREA LAND USE	<p>Properties along Saddle Club Road are primarily developed with single-family homes with lot sizes ranging from under one acre to over ten acres. The Tupelo Junction subdivision is also under construction across Saddle Club Road. Parcels that border the site to the southeast are part of a single-family subdivision known as Mallory Place. Larger properties to the northeast in Orange County are forested, with one single-family home near the site's northern border.</p>
ONSITE AMENITIES & DEDICATIONS	<p>The applicant proposes to dedicate +/- 6.05 acres to the City of Mebane for a public park. In addition to the land dedication, the applicant has committed to constructing the following public amenities as illustrated on the site plan: a soccer field, six pickleball courts, restrooms, a parking lot, 8' walking trail, and stormwater control measure. The applicant has also proposed to construct a public sidewalk along Saddle Club Road from the proposed public park to Lebanon Road. Additionally, the applicant will construct a crosswalk at Saddle Club Road and Lebanon Road to connect residents to the Lake Michael Park Connector currently under construction by the City of Mebane.</p>
CONDITIONAL ZONE?	<p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>The applicant is requesting a 20' rear setback for Lots 6 – 14 and Lot 60 and a minimum 50' lot width for all lots. Table 4-2-1 of the Mebane UDO requires a 25' rear setback and 65' lot width for homes in the R-12 Zoning District. The lots with reduced rear setbacks abut landscape buffers.</p>
DESCRIPTION OF PROPOSED CONDITIONS	<p>The applicant is proposing to dedicate +/- 6.05 acres of land for public recreation area. The site plan shows +/- 7.18 acres of qualifying private common open space. Pursuant to Section 6-8 of the Mebane UDO, the applicant is required to provide 3.16 acres of public recreation area and 10.14 acres.</p>

CONSISTENCY WITH *MEBANE BY DESIGN* STRATEGY

LAND USE GROWTH STRATEGY DESIGNATION(S)	G-4 Secondary Growth Area
OTHER LAND USE CONSIDERATIONS	Graham-Mebane Lake Public Water Supply Watershed WS-II Balance of Watershed Area
<i>MEBANE BY DESIGN</i> GOALS & OBJECTIVES SUPPORTED	GROWTH MANAGEMENT GOAL 1.4 Ensure that adequate community facilities are integrated into new development to reduce distances to parks, schools, and community centers.
	OPEN SPACE AND NATURAL RESOURCE PROTECTION GOAL 4.3 Support park, greenway, and open space expansion in developed and developing areas, prioritizing connectivity between each location.
<i>MEBANE BY DESIGN</i> GOALS & OBJECTIVES <u>NOT</u> SUPPORTED	



CITY OF MEBANE
Future Growth Area Map

Conditional Rezoning
Saddle Club

1 inch = 1,000 feet

DATE: 06/05/24

DRAWN BY: AO

UTILITIES REPORT

AVAILABLE UTILITIES	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
PROPOSED UTILITY NEEDS	Per the technical memorandum from the City Engineer, the development is estimated to have a water use of approximately 27,500 gallons per day and a sewer use of 24,750 gallons per day. The development is proposed to connect to an existing 12-inch public water main on Lebanon Road, extending along the property's entire frontage. Internal to the site, 8-inch water mains are proposed. The development will have an 8-inch sewer connection to an existing 10-inch public gravity sewer line in Lebanon Road extended to the first driveway. From there, the subdivision is served with public 8-inch gravity sewer line extensions with appropriate manhole spacing.
UTILITIES PROVIDED BY APPLICANT	The applicant has pledged to provide all on-site utilities, as described in AWCK's Technical Memo.
MUNICIPAL CAPACITY TO ABSORB PROJECT	The City has adequate water & sewer supply to meet the domestic and fire flow demands of the project.
CONSISTENCY WITH MEBANE LONG RANGE UTILITY PLAN?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
ADEQUATE STORMWATER CONTROL?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
INNOVATIVE STORMWATER MANAGEMENT?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
TRANSPORTATION NETWORK STATUS	
CURRENT CONDITIONS	<p>The subject property borders Saddle Club Road to the west. The site plan proposes two entrances from the subdivision to Saddle Club Road as well as one entrance from the public amenity area to Saddle Club Road.</p> <p>NCDOT maintains Saddle Club Road, which currently is a two-lane undivided road. In 2019, the reported average daily traffic volume for Saddle Club Road was 400 vehicles per day. This is the most recent data available for Saddle Club Road. Lebanon Road had a 2021 annual average daily traffic count of 3,800 in the vicinity of Saddle Club Road. The section of Saddle Club Road fronting the site registered a moderate safety score of 44.</p>
TRAFFIC IMPACT ANALYSIS REQUIRED?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
DESCRIPTION OF RECOMMENDED IMPROVEMENTS	A traffic impact analysis (TIA) was conducted in May 2021 as required by local ordinance. The proposed development did not generate enough trips to warrant a traffic study by the NCDOT.

No improvements to public roadways are required. All study area intersections and proposed driveways are expected to operate at acceptable levels of service.

Since this TIA was completed, Tupelo North, a subdivision with 207 proposed homes, was approved in the area. The TIA for Tupelo North considered this proposed subdivision as background growth. The developer of Tupelo North is required to install a traffic signal at the intersection of Stagecoach Road and Lebanon Road.

CONSISTENCY WITH THE MEBANE BICYCLE AND PEDESTRIAN TRANSPORTATION PLAN?

YES NO

MULTIMODAL IMPROVEMENTS PROVIDED BY APPLICANT?

YES NO

DESCRIPTION OF MULTIMODAL IMPROVEMENTS

All proposed streets will have a sidewalk on at least one side. The applicant also proposes to construct a sidewalk for the length of the current parcel along Saddle Club Road to the intersection with Lebanon Road. Additionally, the applicant will install a crosswalk across Lebanon Road at the intersection with Saddle Club Road. Bicycle racks and a 8' walking trail are proposed as part of the public amenity area.

STAFF RECOMMENDATION

STAFF ZONING RECOMMENDATION

APPROVE DISAPPROVE

STAFF SPECIAL USE FINDING

CONSISTENT NOT CONSISTENT.....WITH *MEBANE BY DESIGN*

RATIONALE

The proposed development "Saddle Club Road" is consistent with the guidance provided within *Mebane By Design*, the Mebane Comprehensive Land Development Plan. Specifically, it is located in the Secondary Growth Area and serves Goals 1.4 and 4.3. The proposed project is in harmony with other existing and proposed developments to the south and west of the property.



Technical Memo

Date: 6-4-24

From: Franz Holt, City Engineer

To: Ashley Ownbey, Development Director

CC: Tyler Wagner, PE with FEI

Subject: Saddle Club Subdivision

The Engineering Department has completed its review of preliminary subdivision plans by FEI Civil Engineers and Land Surveyors located in Colfax NC. The proposed phased subdivision includes 110 single family lots with the rezoning request from R-20 to R-12 (CD) Residential Cluster. Our technical review comments are as follows:

- A. Preliminary Water System Layout– The site plans call for tapping Mebane’s 12-inch public water main on Lebanon Road and extending along the entire property frontage with appropriate valves and fire hydrant spacing. Internal to the site are proposed public 8-inch water mains with appropriate valve and fire hydrant spacing. The city can meet the proposed domestic water use of approximately 27,500 gallons per day (gpd) at 250 gpd per equivalent residential unit (ERU) and fire demand requirements.
- B. Preliminary Sanitary Sewer System Layout – The site plans call for an 8-inch sewer connection to Mebane’s 10-inch public gravity sewer line on Lebanon Road and extending it to the first subdivision roadway connection on Saddle Club Road. From there the subdivision is served with public 8-inch gravity sewer line extensions with appropriate manhole spacing. The city can meet the proposed sewer needs of approximately 24,750 gpd at 225 gpd per ERU at its downstream facilities. A small sanitary sewer lift station is required for the amenity restrooms. I have reviewed the preliminary sewer system layout, finding it acceptable.
- C. Preliminary Storm Sewer Layout – The storm sewer layout shows drainage structures and piping capturing all built upon area and discharging to five separate storm water control measures (fenced). I have reviewed the preliminary storm sewer system layout, finding it acceptable.
- D. Sidewalk Layout - The developer is providing a 5-foot-wide sidewalk along the Saddle Club Road property frontage. Crosswalks are to be installed to Tupelo Junction and at Lebanon Road to the recently constructed Lebanon Road trail connector. At a minimum, internal sidewalks are provided along one side of the street network. I have reviewed the preliminary sidewalk

system layout, finding it acceptable.

- E. Preliminary Internal Street Layout – Streets are to be City of Mebane standard 31' b-b roll curb and gutter. The public street network includes one permanent cul-de-sac, one temporary cul-de-sac to adjacent property, and one stub street to adjacent property. I have reviewed the preliminary internal street layout, finding it acceptable.
- F. Preliminary Stormwater Management Plan– The site is within the Graham-Mebane (WS-II) balance of water supply watershed with a maximum built upon area (BUA) of 30% allowed with stormwater control measures. Stormwater treatment shall meet City of Mebane requirements for water quality (treating runoff from 1-inch rain) and quantity (detaining post vs. pre-development discharge rate for a 10-year storm). Engineering has reviewed the preliminary stormwater management plan, finding it acceptable.
- G. TIA Analysis and Roadway Connections – Two roadway connections are proposed to Saddle Club Road (SR 1346) each with one ingress and egress lane. In addition, Ramey Kemp and Associates completed a TIA which has been reviewed by Mebane's consultant VHB and NCDOT. The findings concluded by the Traffic Engineers are that intersection capacity for all studied intersections (including the site connections), are expected to operate at acceptable levels of service under existing and future year conditions without additional roadway improvements (turn-lanes, etc).
- H. Site Construction Drawings – Site construction drawings are required for TRC review and approval along with a flood study. A flood study will not be required if storm water control measures are designed to detain the peak discharge rate post vs. pre-development for a 100-year storm.
- I. Other – The development requires annexation for water and sewer service. The Public Park amenity will require dedication as well as all other public items when completed to the City of Mebane's requirements.

**To access the TIA,
[click here.](#)**



Memorandum

To: Cy Stober, AICP
Development Director
City of Mebane
106 East Washington Street
Mebane, NC 27302

Date: July 21, 2021

Project #: 39160.00

From: Baohong Wan, PhD, PE

Re: Saddle Club Subdivision TIA Review

A Traffic Impact Analysis (TIA) was prepared by Ramey Kemp & Associates (RKA) for the proposed Saddle Club Subdivision located north of Lebanon Road and east of Saddle Club Road in Mebane, North Carolina. VHB is contracted by the City of Mebane to conduct an independent review of the Saddle Club Subdivision TIA. This memo provides a summary of critical findings, following by a detailed review of study process and analysis results.

List of Mitigation Recommendations

The following items in **red** should be considered in addition to mitigation measures that have been identified within the Saddle Club Subdivision TIA.

- Saddle Club Road and Site Access A
 - Construct Site Access A with one ingress and one egress lane.
- Saddle Club Road and Site Access B
 - Construct Site Access B with one ingress and one egress lane.
- **Conduct turn lane warrant analysis along Lebanon Road.**
- Multimodal Considerations: compliance of multimodal transportation requirements should be examined to ensure adequacy of pedestrian, bike, and transit facilities along internal streets and roadways along the property frontage.

Requested Analysis Revisions

- Revise the Existing PM peak hour analysis in Synchro and technical appendices to match the intersection volumes to the 2021 Existing Peak Hour Traffic (Figure 4).

Development Plan

The proposed development is anticipated to consist of up to 125 single-family homes. Access to the proposed site is to be provided via two (2) full movement driveways on Saddle Club Road. A dedicated left-turn lane on southbound Saddle Club Road is shown at Access B on the attached development plan. Although a left-turn lane is not required by the TIA, it is desired to be provided for safety considerations. A third driveway dedicated for the park/public gathering area is shown on the development plan.

Study Area and Analysis Scenarios

The TIA included the following intersections through coordination with NCDOT and the City of Mebane:

- Lebanon Road and E Stagecoach Road (unsignalized)
- Lebanon Road and Saddle Club Road (unsignalized)
- Lebanon Road and Mill Creek Road (unsignalized)



Memorandum

The buildout is expected to occur in 2023. The TIA included capacity analyses during the weekday AM and PM peak hours under the following scenarios:

- Existing Year (2021)
- No-Build (2023)
- Build (2023)

The study area and analysis scenarios appear consistent with the City of Mebane and NCDOT standards.

Existing Volume and Background Assumptions

Existing (2021) analysis was conducted based on the peak hour traffic volumes from the existing 2017 and 2019 scenario from the Northeast Village TIA during typical weekday AM (7 to 9 AM) and PM (4 to 6 PM) peak hours. All counts were grown to the existing year (2021) utilizing a one percent (1%) annually compounded growth rate.

The No-Build (2023) scenario included an annual growth rate of one percent (1%) between the existing year (2021) and the future analysis year (2023), as well as site traffic associated with the following four (4) adjacent developments:

- Northeast Village (Havenstone Phase 1 and Phase 2)
- Retreat at Lake Michael
- Stagecoach Corner
- Landing at Lake Michael

Based on coordination with the NCDOT and the Town, it was determined that there were no future roadway improvements to consider with the TIA.

Trip Generation & Distribution

Trip generation potential was determined based on methodology outlined in the *ITE Trip Generation Manual, 10th Edition*. ITE Land Use Code (LUC) 210 (Single-Family Detached Housing) was used based on the proposed land uses. Based on the TIA, the proposed development is projected to generate 1,277 vehicles per day on a typical weekday with 94 AM peak hour trips (23 entering, 71 exiting) and 126 PM peak hour trips (79 entering, 47 exiting).

Based on a combination of existing traffic patterns, coordination with the site team, population centers adjacent to the study area, and engineering judgment, passenger vehicle site traffic for this development were distributed as follows:

- 5% to/from the north via Mill Creek Road
- 25% to/from the east via Lebanon Road
- 35% to/from the south via Lebanon Road
- 35% to/from the west via E Stagecoach Road

Capacity Analysis Results

Capacity analyses were performed using Synchro based on the Highway Capacity Manual method. Capacity analyses in the TIA were conducted following the NCDOT Congestion Management Capacity Analysis Guidelines. LOS, delay, and queue are reported and summarized for stop-controlled approaches at unsignalized intersections.



Memorandum

The analysis results and mitigation determinations are summarized below for each individual intersection. Individual approach level of service and delay should be summarized for stop-controlled approach at unsignalized intersections.

Lebanon Road and E Stagecoach Road

Intersection and Approach	Traffic Control	Existing (2021)		No-Build (2023)		Build (2023)	
		AM	PM	AM	PM	AM	PM
Lebanon Road and E Stagecoach Road	Unsignalized	N/A	N/A	N/A	N/A	N/A	N/A
Eastbound		A-9.9	B-11.5	B-11.8	C-17.9	B-12.6	C-22.2

The TIA indicated that stop-controlled Stagecoach Road is expected to operate at LOS C or better during both peak hours under all future year conditions. No additional improvements were recommended at this intersection. Since Lebanon Road is expected to exceed 4,000 VPD under the future year conditions, turn lane warrant analysis should be provided along Lebanon Road at this intersection.

Lebanon Road and Saddle Club Road

Intersection and Approach	Traffic Control	Existing (2021)		No-Build (2023)		Build (2023)	
		AM	PM	AM	PM	AM	PM
Lebanon Road and Saddle Club Road	Unsignalized	N/A	N/A	N/A	N/A	N/A	N/A
Southbound		A-9.4	A-9.6	B-10.8	B-11.7	B-11.7	B-13.5

The TIA indicated that stop-controlled Saddle Club Road is expected to operate at LOS B during both peak hours under Build conditions. No additional improvements were recommended at this intersection. Since Lebanon Road is expected to exceed 4,000 VPD under the future year conditions, turn lane warrant analysis should be provided along Lebanon Road at this intersection.

Lebanon Road and Mill Creek Road

Intersection and Approach	Traffic Control	Existing (2021)		No-Build (2023)		Build (2023)	
		AM	PM	AM	PM	AM	PM
Lebanon Road and Mill Creek Road	Unsignalized	N/A	N/A	N/A	N/A	N/A	N/A
Southbound		A-8.9	A-9.4	A-9.6	B-10.3	A-9.7	B-10.5

The TIA indicated that stop-controlled Mill Creek Road is expected to operate at LOS B or better during both peak hours under the Build conditions. No additional improvements were recommended at this intersection. Since Lebanon Road is expected to exceed 4,000 VPD under the future year conditions, turn lane warrant analysis should be provided along Lebanon Road at this intersection.



Saddle Club Road and Site Access A

Intersection and Approach	Traffic Control	Build (2023)	
		AM	PM
Saddle Club Road and Site Access A	Unsignalized	N/A	N/A
Westbound		A-9.6	A-9.8

The TIA indicated that stop-controlled Site Access A is expected to operate at LOS A during both peak hours under build conditions. The following site access configuration was recommended for the intersection:

- Construct Site Access A with one ingress and one egress lane.

No additional improvements are recommended at this intersection.

Saddle Club Road and Site Access B

Intersection and Approach	Traffic Control	Build (2023)	
		AM	PM
Saddle Club Road and Site Access B	Unsignalized	N/A	N/A
Westbound		A-9.2	A-9.4

The TIA indicated that stop-controlled Site Access B is expected to operate at LOS A during both peak hours under build conditions. The following site access configuration was recommended for the intersection:

- Construct Site Access B with one ingress and one egress lane.

No additional improvements are recommended at this intersection.

Cc: C. N. Edwards Jr., PE, NCDOT Highway Division 7 District 1



Date: June 4, 2024

To: Mayor Ed Hooks
Mayor Pro-Tem Tim Bradley
Katie Burkholder
Sean Ewing
Montrena Hadley
Jonathan White

Subject: Public Recreation Area for Proposed Residential Subdivision

Mayor Hooks,

The residential subdivision "Saddle Club Road" is being presented before the City of Mebane's Planning Board for consideration at the June 10, 2024, meeting. This project is subject to public recreational space requirements identified in Section 6-8.1 of the Mebane Unified Development Ordinance (UDO). The provided site plan shows a dedication of +/- 5.19 acres of public recreational space.

In addition to the land dedication, the site plan shows the developer will construct park amenities. Currently, the applicant proposes the following park amenities: one regulation soccer field; two sand volleyball courts; 8' walking trail; and restrooms. Additionally, the site plan shows the construction of a parking lot and stormwater control measures. We have asked the developer to add adequate fencing on the parking lot side of the soccer field and sand volleyball courts for safety purposes. I have reviewed the proposed site plan for unity, location, physical characteristics, and accessibility per Section 6-8.1 of the Mebane UDO and feel that the land dedication and park amenities will satisfy public recreation needs for the immediate area.

Sincerely,

A handwritten signature in blue ink, appearing to read "Aaron Davis", written over a horizontal line.

Aaron Davis
Recreation and Parks Director

CC: Chris Rollins, City Manager
Preston Mitchell, Assistant City Manager
Ashley Ownbey, Development Director

AGENDA ITEM #6C

Ordinance to Extend the Corporate Limits-
Voluntary Contiguous Annexation-
Orange County Investors Partnership- Tracts
1 & 3 (R&L Carriers)

Meeting Date

July 1, 2024

Presenter

Lawson Brown, City Attorney

Public Hearing

Yes No

Summary

The Council will consider the approval of an Ordinance to Extend the Corporate Limits as the next step in the annexation process. This is a voluntary contiguous annexation of +/- 84.756 acres in Orange County on Buckhorn Road.

Background

At the June 3, 2024, Council Meeting, the Council accepted the petition for annexation and the Clerk's certificate of sufficiency and adopted a Resolution setting a date of Public Hearing for July 1, 2024, to consider approval of extending Mebane's corporate limits. The Public Hearing Notice was properly advertised.

Financial Impact

The property and improvements will be added to the ad valorem tax base for the City once the property is annexed as determined by the state statute.

Recommendation

Staff recommends the adoption of an Ordinance to Extend the Corporate Limits of the City of Mebane, North Carolina.

Suggested Motion

I move to adopt an Ordinance to Extend the Corporate Limits of the City of Mebane, North Carolina to include the +/- 84.756 acres.

Attachments

1. Ordinance
2. Map

AN ORDINANCE TO EXTEND THE CORPORATE LIMITS
OF THE CITY OF MEBANE, NORTH CAROLINA

Mail after recording to: City of Mebane, Attn: City Clerk, 106 E. Washington Street, Mebane, NC 27302

Ordinance No. 170

WHEREAS, the City Council has been petitioned under G.S. 160A-31 to annex the area described below; and

WHEREAS, the City Council has by resolution directed the City Clerk to investigate the sufficiency of the petition; and

WHEREAS, the City Clerk has certified the sufficiency of the petition and a public hearing on the question of this annexation was held at the Glendel Stephenson Municipal Building at 6:00 p.m. on July 1, 2024, after due notice by the News of Orange on June 19, 2024, and the Alamance News on June 20, 2024; and

WHEREAS, the City Council finds that the petition meets the requirements of G.S. 160A-31;

NOW THEREFORE, BE IT ORDAINED by the City Council of the City of Mebane, North Carolina that:

Section 1. By virtue of the authority granted by G.S. 160A-31, the following described territory is hereby annexed and made part of the City of Mebane as of July 1, 2024:

Lying and being situate in Cheeks Township, Orange County, North Carolina, and being all the property referenced as Tax ID: 9834-47-5147 (Orange County Investors (Deed Book 475, Page 583), Tax ID: 9834-45-4704 (Orange County Investors (Deed Book 6750, Page 1549), Tax ID: 9834-35-7977 (Orange County Investors (Deed Book 6837, Page 1720), Tax ID: 9834-35-7585 (Orange County Investors (Deed Book 6821, Page 1106), Tax ID: 9834-35-7650 (Orange County Investors (Deed Book 6820, Page 1516), Tax ID: 9834-35-7666 (Joe Louis Fearington (Deed Book 392, Page 394) and Tax ID: 9834-35-7842 (Joe Louis Fearington (Deed Book 226, Page 403) and being more particularly described as follows:

BEGINNING at an existing 7/8" pipe being a common corner with Jeffrey B. Ellis (Deed Book 6788, Page 546) and having North Carolina Geodetic Coordinates (NAD 83/2011) of: Northing: 845,891.72 feet, Easting: 1,935,083.10 feet and said pipe being the POINT OF BEGINNING:

THENCE with the New Line of Division the following Eight (8) calls: (1) North 49°56'49" West, 363.36 feet to a new corner; (2) South 88°59'45" West, 87.85 feet to a new corner; (3) South 78°44'00" West, 42.24 feet to a new corner; (4) South 67°06'44" West, 70.75 feet to a new corner; (5) South 84°08'37" West, 206.76 feet to a new corner; (6) North 47°56'04" West, 50.35 feet to a new corner; (7) North 80°15'27" West, 37.02 feet to a new corner; (8) North 89°54'53" West, 589.48 feet to a point in the centerline of Buckhorn Road;

THENCE with the centerline of Buckhorn Road the following Two (2) calls: (1) North 12°56'20" East, 113.56 feet to a point; (2) North 13°15'04" East, 183.69 feet to a point;

THENCE leaving the centerline North 82°30'23" West, 52.25 feet to an existing 3/4" pipe in the western right-of-way of Buckhorn Road and being a common corner of Nepalese Investment Group LLC (Deed Book 6292, Page 570) and Buckhorn Industrial II LLC (Deed Book 6782, Page 1395);

THENCE along the western right-of-way line of Buckhorn Road the following Three (3) calls: (1) with a curve to the left having an arc length of 476.29 feet and a radius of 1327.00 feet and a chord bearing and distance of North 00°13'28" West, 473.74 feet to an existing NCDOT right-of-way disk; (2) North 15°28'42" West, 196.50 feet to a point; (3) North 13°54'26" West, 86.08 feet to a point;

THENCE leaving said right-of-way North 82°43'32" East, 131.59 feet to an existing axle;

THENCE with a curve to the left having an arc distance of 717.75 feet and a radius of 1,000.00 feet and a chord bearing and distance of North 50°45'39" East, 702.44 feet to an existing 1" pipe w/cap in the southern right-of-way of I-85/40;

THENCE with the said right-of-way of I-85/40 the following Eight (8) calls: (1) with a curve to the right having an arc distance of 386.21 feet and radius of 1352.39 feet and a chord bearing and distance of North 87°12'54" East, 384.90 feet to an existing nail; (2) South 81°53'57" East, 194.46 feet to an existing NCDOT right-of-way disk; (3) South 79°17'02" East, 176.22 feet to an existing 12" spike; (4) South 79°17'02" East, 73.81 feet to a point; (5) South 80°34'56" East, 950.05 feet an existing NCDOT right-of-way disk; (6) North 77°38'10" East, 53.81 feet to an existing NCDOT right-of-way disk; (7) South 81°00'06" East, 133.83 feet to an existing 3/4" pipe; (8) South 80°48'04" East, 22.58 feet to an existing 3/4" pipe being a common corner with MRE Propco LP (Deed Book 6753, Page 758);

THENCE with the common line of MRE Propco LP (Deed Book 6753, Page 758) South 8°41'57" East, 1,209.20 feet to an existing 2" pipe being a common corner with Jeffrey M. and Barbara A. Hewlings (Deed Book 6816, Page 1129);

THENCE with the common line of Jeffrey M. and Barbara A. Hewlings (Deed Book 6816, Page 1129) and Fredrick Lopiccolo et al (Deed Book 6809, Page 869) South 87°13'51" West, 1,039.11 feet to an existing 3/4" pipe;

THENCE continuing with the common line of Fredrick Lopiccolo et al (Deed Book 6809, Page 869) South 8°44'36" East, 214.22 feet to an existing railroad track iron being a common corner with Dollie H. Doby (Deed Book 6363, Page 415);

THENCE with the common line of Dollie H. Doby (Deed Book 6363, Page 415) South 84°34'58" West, 210.13 feet to an existing 1" pipe being a common corner with Jeffrey B. Ellis (Deed Book 6788, Page 546);

THENCE with the common line of Jeffrey B. Ellis (Deed Book 6788, Page 546) South 84°39'58" West, 209.88 feet to the POINT OF BEGINNING containing 84.756 Acres or 0.132 Square Miles more or less.

Section 2. Upon and after July 1, 2024, the above-described territory and its citizens and property shall be subject to all debts, laws, ordinances, and regulations in force in the City of Mebane and shall be entitled to the same privileges and benefits as other parts of the City of Mebane. Said territory shall be subject to municipal taxes according to G.S. 160A-58.10.

Section 3. The Mayor of the City of Mebane shall cause to be recorded in the office of the Register of Deeds of Orange County and in the office of the Secretary of State at

Raleigh, North Carolina, an accurate map of the annexed territory, described in Section 1 above, together with duly certified copy of this ordinance. Such a map shall also be delivered to the Orange County Board of Elections as required by G.S. 163-288.1.

Adopted this 1st day of July 2024.

City of Mebane

Ed Hooks, Mayor

ATTEST:

Stephanie W. Shaw, City Clerk

Approved as to form:

Lawson Brown, City Attorney



AGENDA ITEM #6D

RZ 24-04

Conditional Rezoning – R+L Carriers

Mebane

Presenter

Ashley Ownbey, Development Director

Applicant

Orange County Investors Partnership

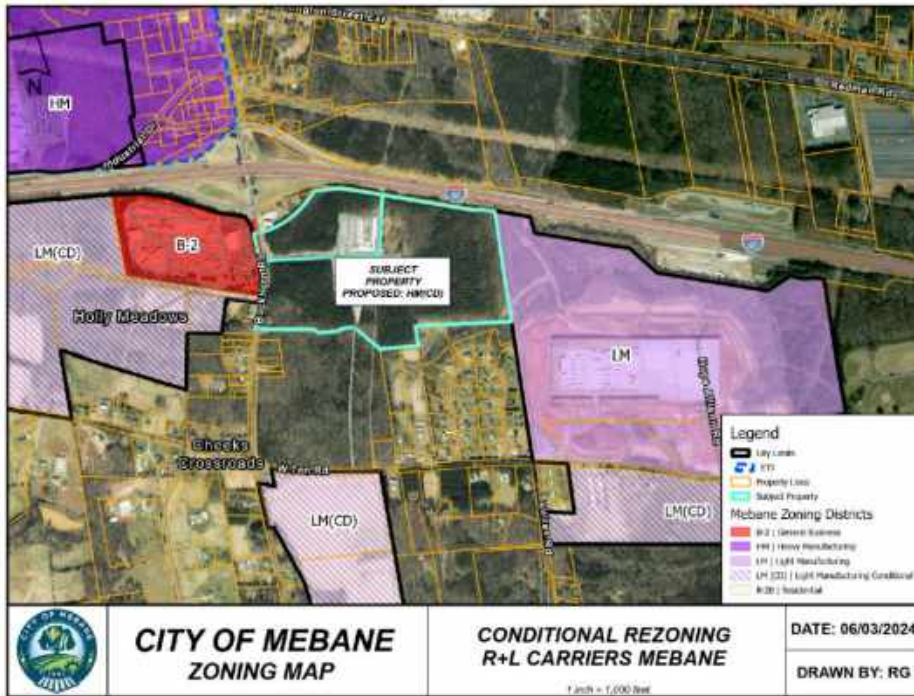
120 W. Whitner Street

Anderson, SC 29624

Public Hearing

Yes No

Zoning Map



Property

508-510 Buckhorn Road
Orange County GPINs:
9834475147 and
9834568820

Proposed Zoning

HM (CD)

Current Zoning

EDB-2 (Orange County –
Economic Development
Buckhorn Higher
Intensity)

Size

+/- 83.368 acres

Surrounding Zoning

Orange County: EDB-2,
PDHR1, R1, & NC2
Mebane: LM, LM (CD) &
B-2

Surrounding Land Uses

Residential, Industrial,
Commercial

Utilities

Available

Floodplain

No

Watershed

Yes

City Limits

No

Application Brief

See Planning Project Report for more details.

Recommendations	
Technical Review Committee:	The Technical Review Committee (TRC) has reviewed the site plan four times (not including pre-submittal meetings), and the applicant has revised the plan to reflect the comments.
Planning Staff:	The proposed development “R+L Carriers Mebane” is consistent with the guidance provided within <i>Mebane By Design</i> , the Mebane Comprehensive Land Development Plan.
Planning Board:	At their June 10 meeting, the Planning Board voted 6-0 to recommend approval of the conditional rezoning request.
Zoning & Land Use Report	
Jurisdiction:	Orange County
Proposed Use By-Right (Yes/No):	No
Type of Rezoning Request:	Conditional
Special Use Request (Yes/No):	No
Consistency with Mebane By Design (Yes/No):	Yes
Utilities Report	
Available Utilities (Yes/No):	Yes
Adequate Stormwater Control (Yes/No):	Yes
Innovative Stormwater Control (Yes/No):	No
Consistency with Long-Range Utility Plan (Yes/No):	Yes
Transportation Report	
Traffic Impact Analysis Required (Yes/No):	Yes
Multi-Modal Improvements (Yes/No):	Yes
Consistency with Bike/Ped Transportation Plan (Yes/No):	Yes

Summary

The applicant/property owner, Orange County Investors Partnership, and the developer, R+L Carriers, are requesting a conditional rezoning to HM(CD) to develop a trucking and freight terminal on a site area totaling +/- 83.368 acres and addressed at 508 and 510 Buckhorn Road. The properties are located outside of the Mebane Extraterritorial Jurisdiction (ETJ) in Orange County. A request for annexation into the City of Mebane has been submitted concurrently with the rezoning request. The applicant plans to combine Tract 1 and Tract 3 to create the total site area.

In 1981, Orange County established three Economic Development Districts (EDDs), including the Buckhorn EDD which includes approximately 900 acres of land and is intended to "...create a district allowing a wide range of non-residential uses with limited higher density residential uses" (Orange County Unified Development Ordinance, p. 3-43). In 1994, Orange County, through a government-initiated land use and zoning change, amended most of the area's zoning to support economic development land uses. The subject property is located in the Buckhorn EDD and zoned EDB-2, Economic Development Buckhorn Higher Intensity, which supports manufacturing, assembly, processing, and distribution uses. Properties to the north and east are also zoned EDB-2. The Medline Distribution Center, which is zoned Light Manufacturing (LM) by Mebane, and the Buckhorn Business Centre, which is zoned LM (CD) by Mebane, are in the immediate area. The proposed project is consistent with the City and County's stated development goals for the area.

The proposed development will be required to follow the submitted site-specific plan. No other conditions are proposed with the conditional rezoning request. A 5' wide sidewalk will be provided along the property's boundaries on Buckhorn Road as required by the Mebane UDO.

A Traffic Impact Analysis (TIA) was required for the proposed development. Based on the recommendations of the TIA, the developer is responsible for the following improvements:

- Construct a full movement driveway with one ingress lane and one egress lane under stop-control aligned with Buckhorn Industrial Parkway (formerly Rabbit Run Lane).
- Provide a minimum of 100 feet of internal protection stem (IPS) length.
- Construct an exclusive southbound left-turn lane with 150 feet of storage and appropriate transitions per NCDOT requirements.
- Construct an exclusive northbound left-turn lane with 100 feet of storage and appropriate transitions per NCDOT requirements.
- Construct an exclusive northbound right-turn lane with 100 feet of storage and appropriate transitions per NCDOT requirements.

Financial Impact

The developer will be required to make all of the improvements at his own expense.

Suggested Motion

1. Motion to approve the HM(CD) zoning as presented.

2. Motion to find that **the application is consistent** with the objectives and goals in the City's 2017 Comprehensive Land Development Plan *Mebane By Design*. Specifically, the request:

- Is for a property within the City's G-2 Industrial Area and is part of the Buckhorn Economic Development District (Mebane CLP, p. 76); and,
- Serves Growth Management Goal 1.7 through the support of industrial development at existing and developing industrial parks near I-40/85 (p. 17 & 84).

OR

3. Motion to **deny** the HM(CD) rezoning as presented due to a lack of

a. Harmony with the surrounding zoning or land use

OR

b. Consistency with the objectives and goals in the City's 2017 Comprehensive Land Development Plan *Mebane By Design*.

Attachments

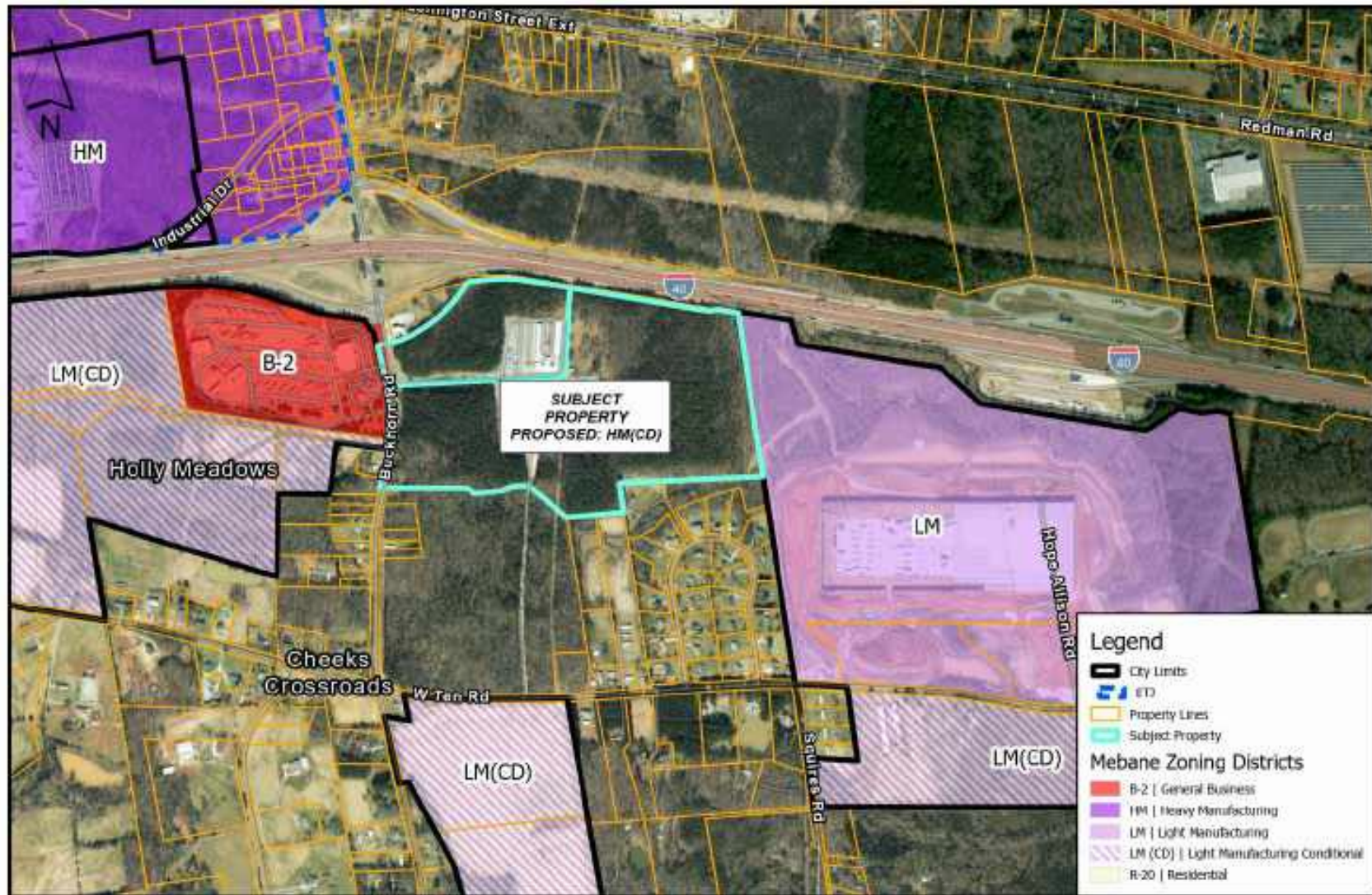
1. Preliminary Presentation Slides
2. Zoning Amendment Application
3. Zoning Map
4. Site Plan – [click here to access](#).
5. Planning Project Report
6. Technical Memorandum – City Engineering Review
7. Traffic Impact Analysis – [click here to access](#).
 - a. NCDOT Review of TIA
 - b. VHB Review of TIA



Ashley Ownbey, Development Director

Request to Establish: HM(CD) Zoning
by Orange County Investors Partnership





R+L Carriers Mebane

Conditional Zoning Request

- Request by Orange County Investors Partnership
- Two lots, totaling +/- 83.368 acres
- Existing zoning: EDB-2 (Orange County)
- Requested zoning: HM (CD)



CITY OF MEBANE
ZONING MAP

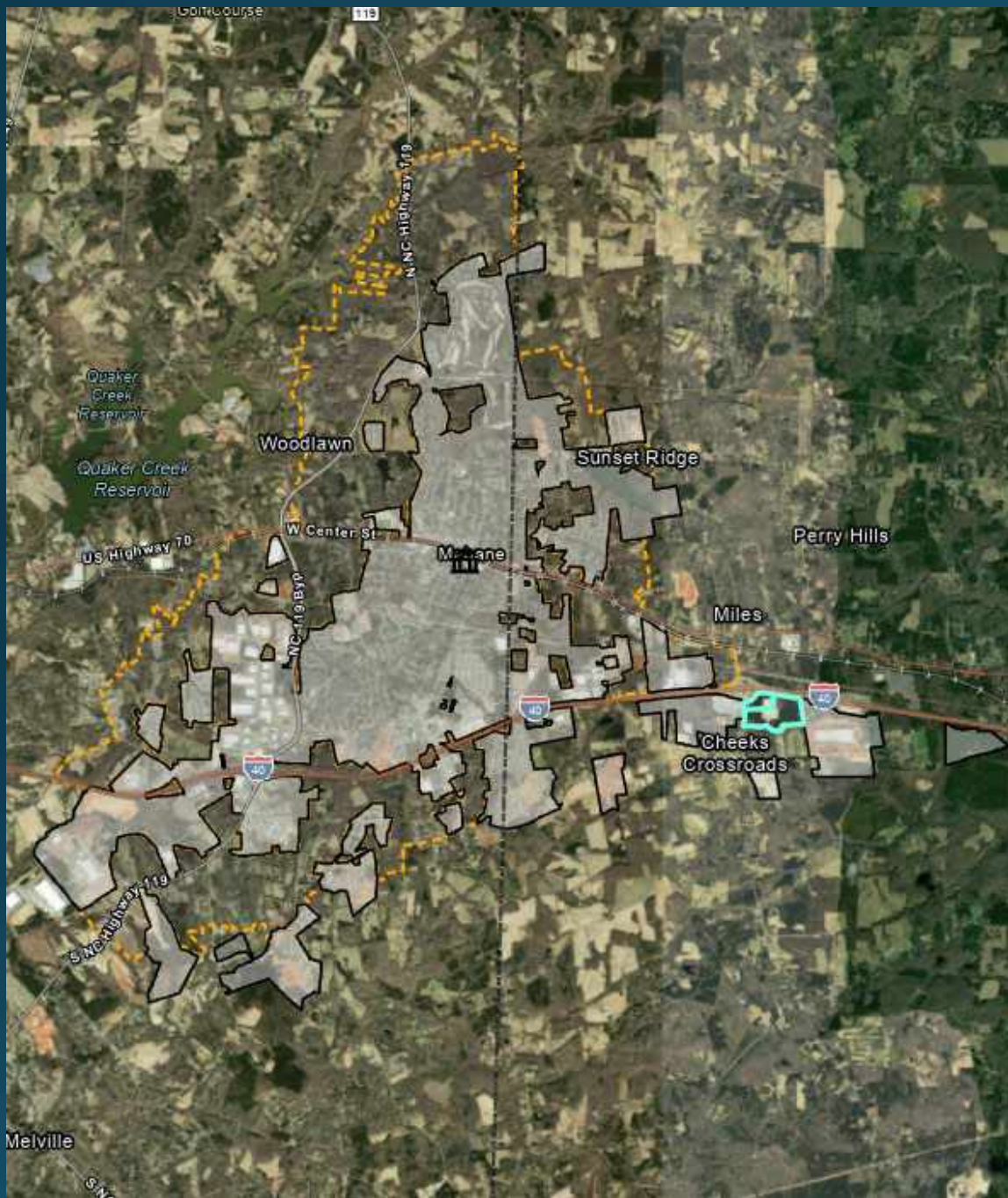
CONDITIONAL REZONING
R+L CARRIERS MEBANE

1 inch = 1,000 feet

DATE: 06/03/2024

DRAWN BY: RG





R+L Carriers Mebane Conditional Zoning Request

- Orange County's Jurisdiction
- Annexation request submitted concurrently with rezoning request.
 - The property must be annexed before the City Council can take action on the rezoning request.

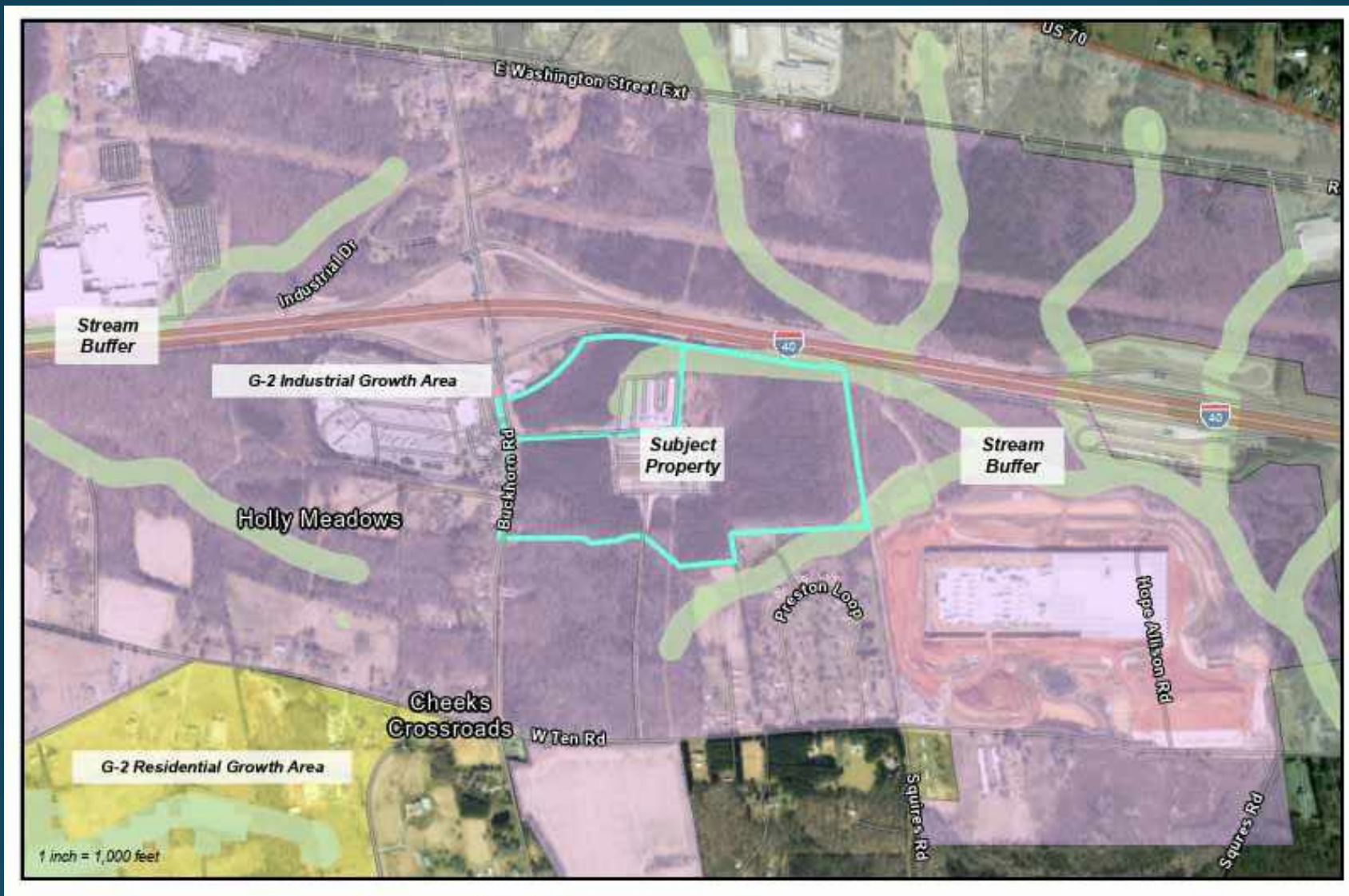




R+L Carriers Mebane Conditional Zoning Request

- Existing use: Flea Market
- Surrounding uses include:
 - Industrial - Buckhorn Business Centre and Medline
 - Commercial - Gas stations and Travel Center
 - Residential
 - Vacant





R+L Carriers Mebane Conditional Rezoning Request

- *Mebane By Design* G-2 Industrial Growth Strategy Area and Conservation Area



R+L Carriers Mebane

Conditional Zoning Request

The applicant is requesting a conditional rezoning to HM(CD) to allow a Trucking and Freight Terminal by R+L Carriers.

Multi-modal Improvements:

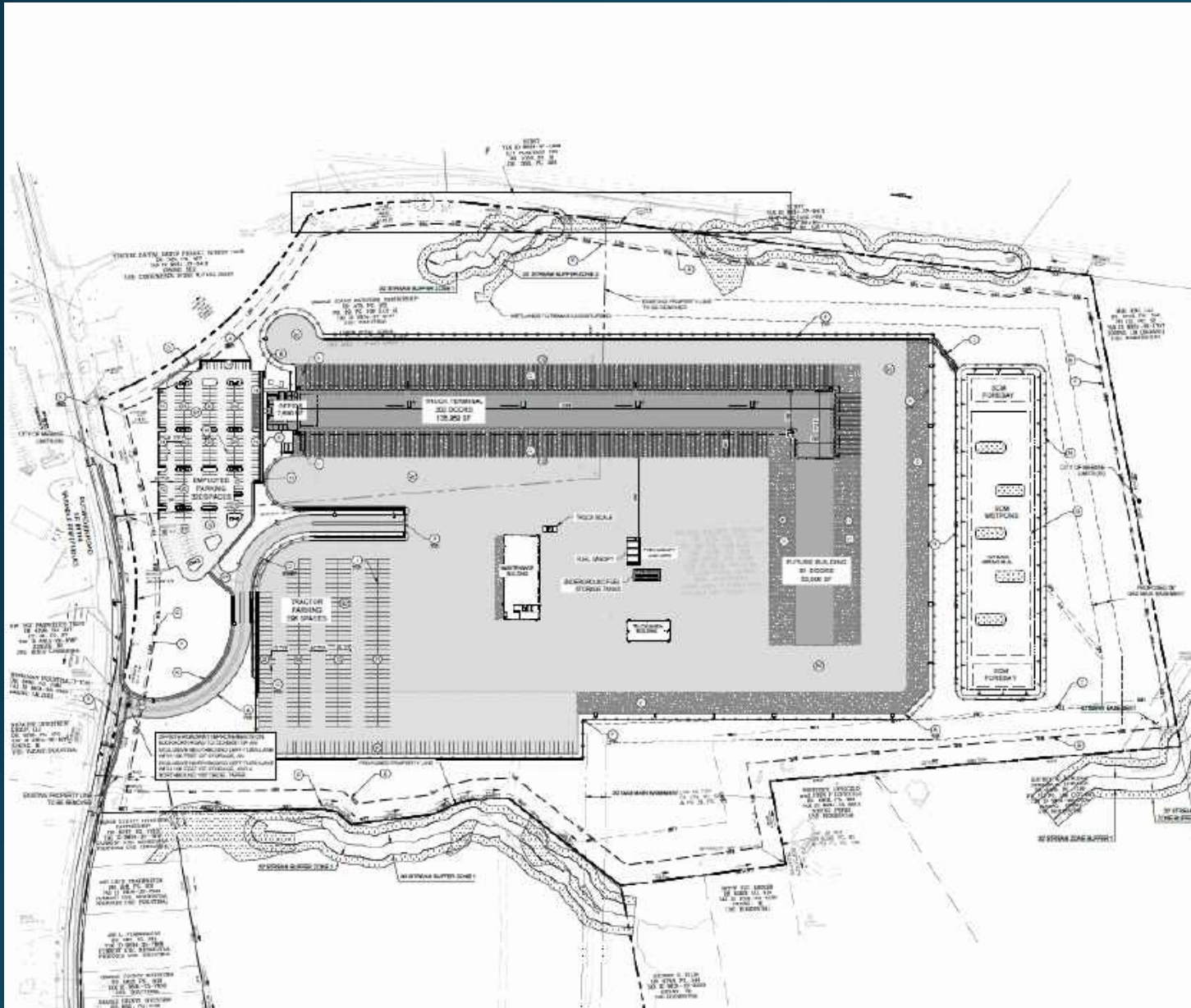
- Construction of a 5-foot sidewalk along the property's boundaries on Buckhorn Road

Road Improvements:

- Required on Buckhorn Road
 - Exclusive southbound left turn lane with 150 feet of storage
 - Exclusive northbound left turn lane with 100 feet of storage
 - Exclusive northbound right-turn with 100 feet of storage

Proposed Conditions:

- The applicant has not requested or proposed any conditions. Development will be required to follow the submitted site-specific plan.





Applicant Presentation





R+L CARRIERS

Rezoning and Annexation Request

508-510 Buckhorn Road off of I-40
Mebane City Council – July 1, 2024



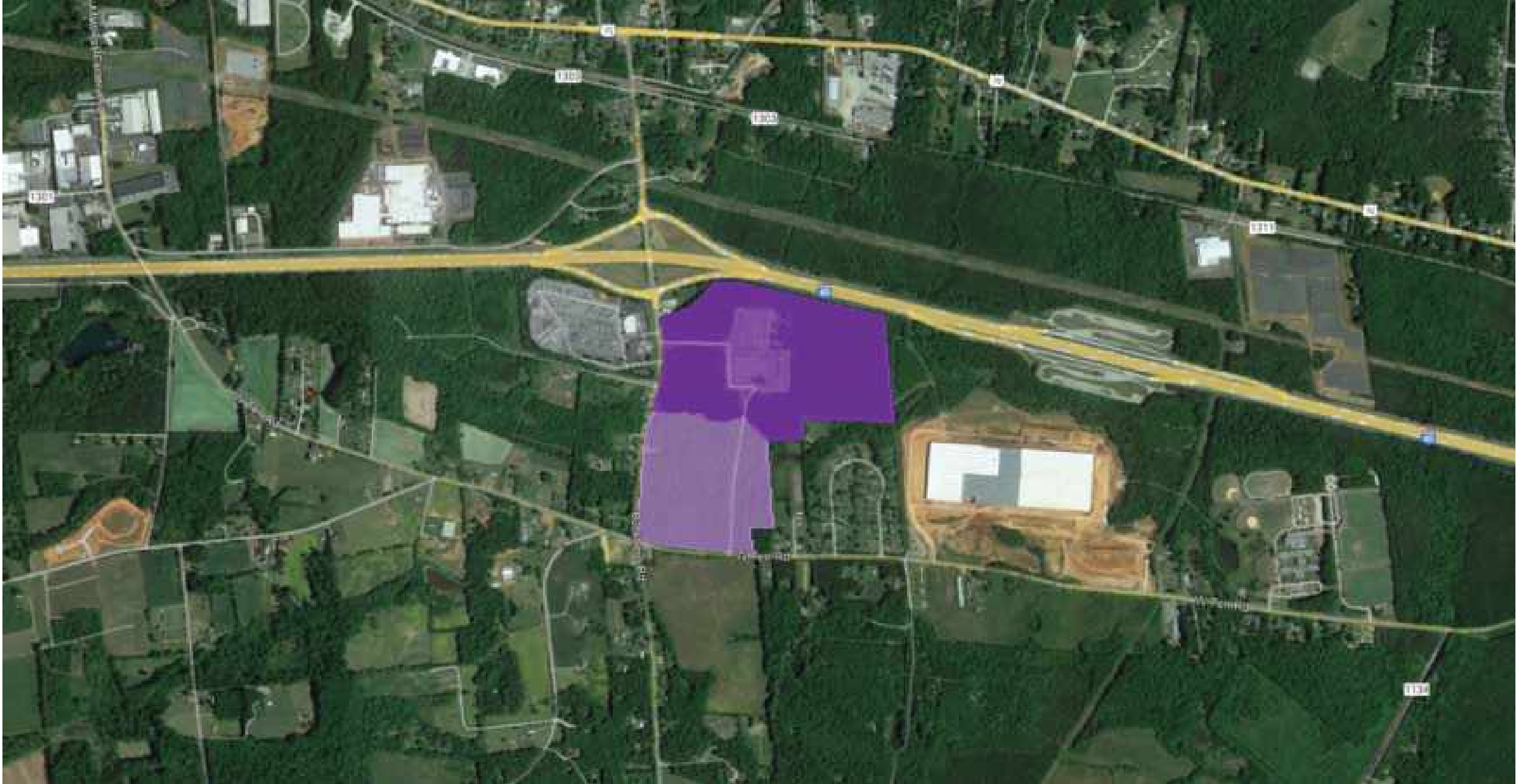
R/L CARRIERS

MEBANE NC

NEW

SERVICE CENTER

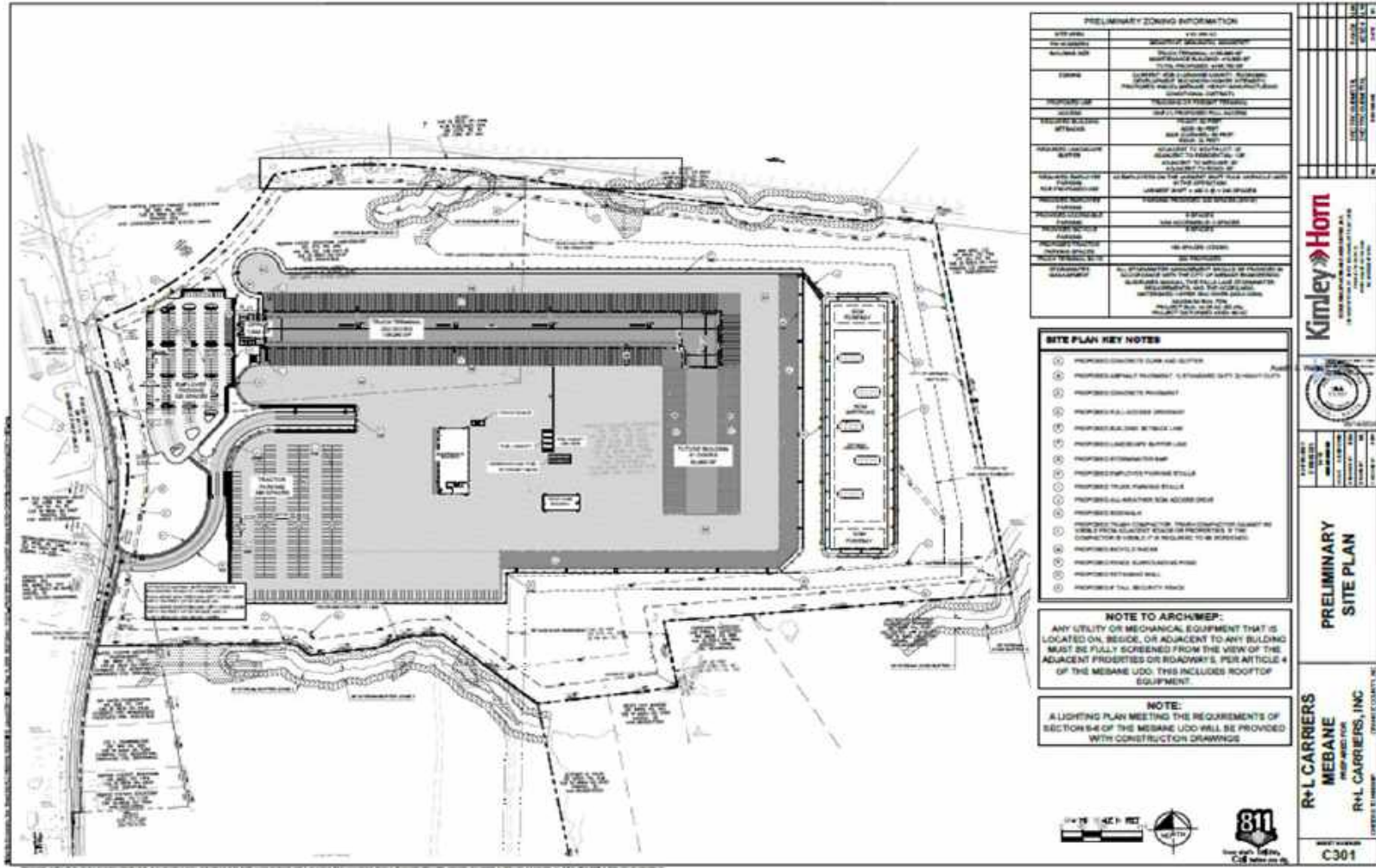
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Annexation and Rezoning

- Current Zoning:
 - Orange County “EDB-2” (Economic Development Buckhorn Development Higher Intensity)
- Requested Zoning:
 - Mebane “HM (CD)” (Heavy Manufacturing – Conditional District)
- Total Acreage: +/- 83.368 acres
- Future Land Use Designation:
 - G-2 Industrial in the Buckhorn Economic Development District

PRELIMINARY SITE PLAN





COMPREHENSIVE PLAN | MEBANE, NC

PLAN RENDER
MAY 2024

Kimley»Horn



R-L CARRIERS | MEDANE, NC

PLAN NUMBER


Kimley  Ho

COMMUNITY MEETING

- Letters mailed on May 13, 2024 to invite neighbors to a community informational meeting.
- Invitation sent to adjoining owners within a 300-foot radius of the subject property (including anyone across any streets).
- Meeting was conducted on May 23, 2024 via Zoom.
- Approximately 7 attendees.
- Applicant answered various questions (e.g., explained landscape buffer; explained construction timeline; explained R+L's safety compliance; explained how light is addressed, etc.).
- No subsequent inquiries have been received.

About R+L Carriers

Mission Statement



R+L CARRIERS is a Global Transportation Provider designed to provide superior service at competitive pricing through safe and efficient operations and innovative thinking to the ultimate benefit of our customers.

Customer satisfaction is mandatory to ensure future success.

As a family owned company, we look forward to representing your logistics needs with the professional services you deserve and as a neighbour you are proud to have next door.

rlc.com

We Ship Anything, Anywhere, Anytime!®

2

The Beginning

1 Man - 1 Truck

- Founded in 1965, by Ralph “Larry” Roberts Sr.
Roby Roberts, CEO - 2010
- R+L Carriers has grown from a single truck, to a fleet of over 25,000 tractors and trailers
- A nationwide network of over 140 service centers
- A dedicated team that exceeds 16,000 employees.



rlc.com

We Ship Anything, Anywhere, Anytime!®

3

Today's Fleet



rlc.com

We Ship Anything, Anywhere, Anytime!®

4

R+L “First” Service Center



We Ship Anything, Anywhere, Anytime!®

5

CORPORATE OFFICE AND SERVICE CENTER WILMINGTON, OHIO



Savannah, GA





Savannah, GA Side View



Temple, TX Dock



Service Center Office



4 Bay – Maintenance Shop



Maintenance Shop Interior



2 Lane – Fuel Island



NEW HOUSING DEVELOPMENT NEXT TO ARLINGTON, TN SERVICE CENTER



R+L Carriers appreciates your consideration of this request.

QUESTIONS ?



APPLICATION FOR A ZONING AMENDMENT

Application is hereby made for an amendment to the Mebane Zoning Ordinance as follows:

Name of Applicant: Orange County Investors Partnership

Address of Applicant: 120 W Whitner Street, Anderson, SC 29624

Address and brief description of property to be rezoned: 508 Buckhorn Rd (PIN 9834475147),
and the recently combined portions of 510 Buckhorn Rd and 610 Buckhorn Rd (PIN 9834-56-8820)

Applicant's interest in property: (Owned, leased or otherwise) Owned

*Do you have any conflicts of interest with: Elected/Appointed Officials, Staff, etc.?

Yes ___ Explain: _____ No

Type of re-zoning requested: Heavy Manufacturing-Conditional District (HM(CD))

Sketch attached: Yes No _____

Reason for the requested re-zoning: To allow for the development of uses permitted in the
Heavy Manufacturing zoning district.

Signed: _____

Date: 5/22/24

*OCEP Member
J W-shy, Ellie*

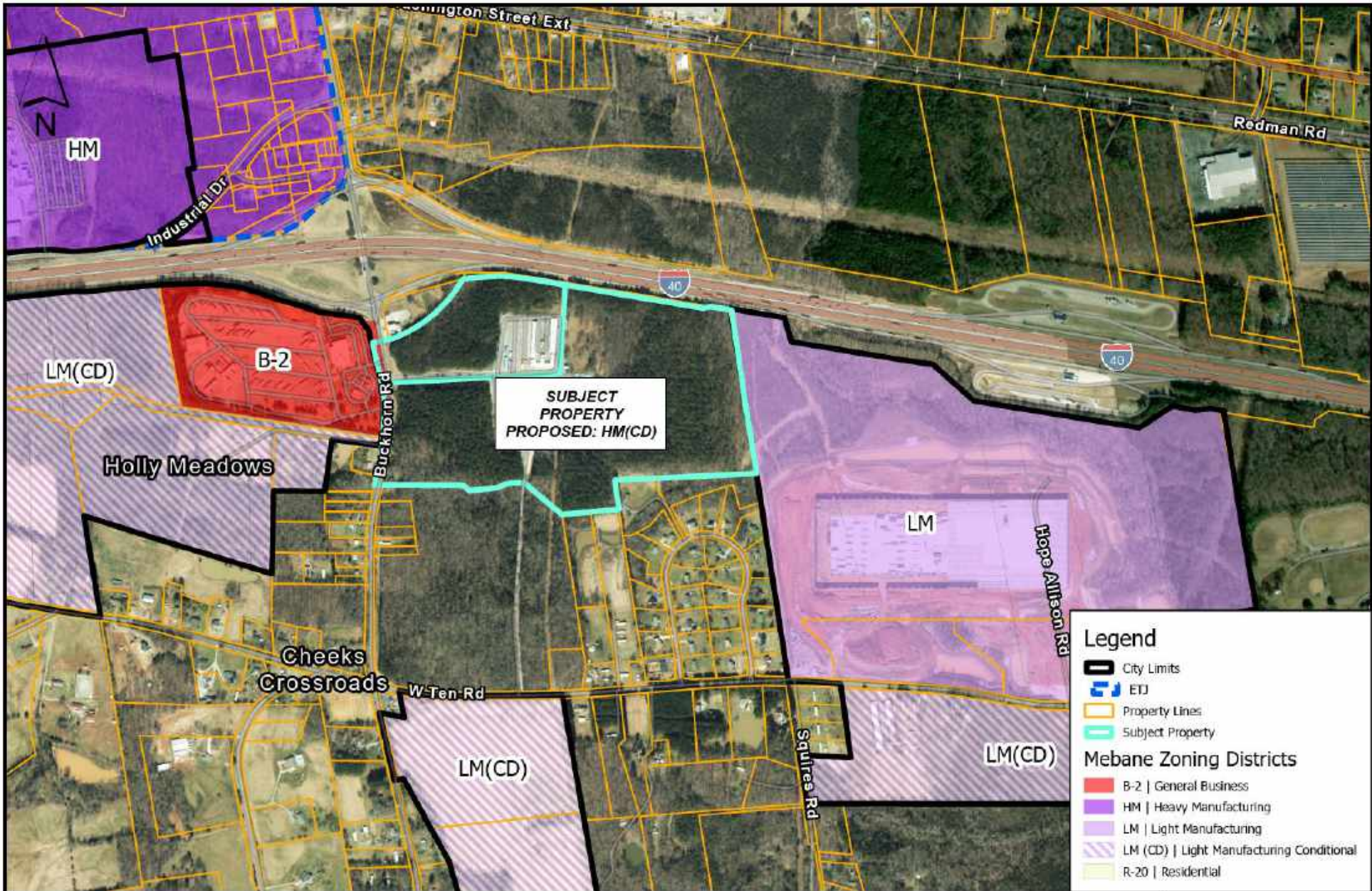
Action by Planning Board: _____

Public Hearing Date: _____ Action: _____

Zoning Map Corrected: _____

The following items should be included with the application for rezoning when it is returned:

1. Tax Map showing the area that is to be considered for rezoning.
2. Names and addresses of all adjoining property owners within a 300' radius (Include those that are across the street).
3. \$300.00 Fee to cover administrative costs.
4. The information is due 15 working days prior to the Planning Board meeting. The Planning Board meets the 2nd Monday of each month at 6:30 p.m. Then the request goes to the City Council for a Public Hearing the following month. The City Council meets the 1st Monday of each month at 6:00 p.m.



**CITY OF MEBANE
ZONING MAP**

**CONDITIONAL REZONING
R+L CARRIERS MEBANE**

1 inch = 1,000 feet

DATE: 06/03/2024

DRAWN BY: RG

**To access the site
plan, [click here.](#)**

PLANNING PROJECT REPORT

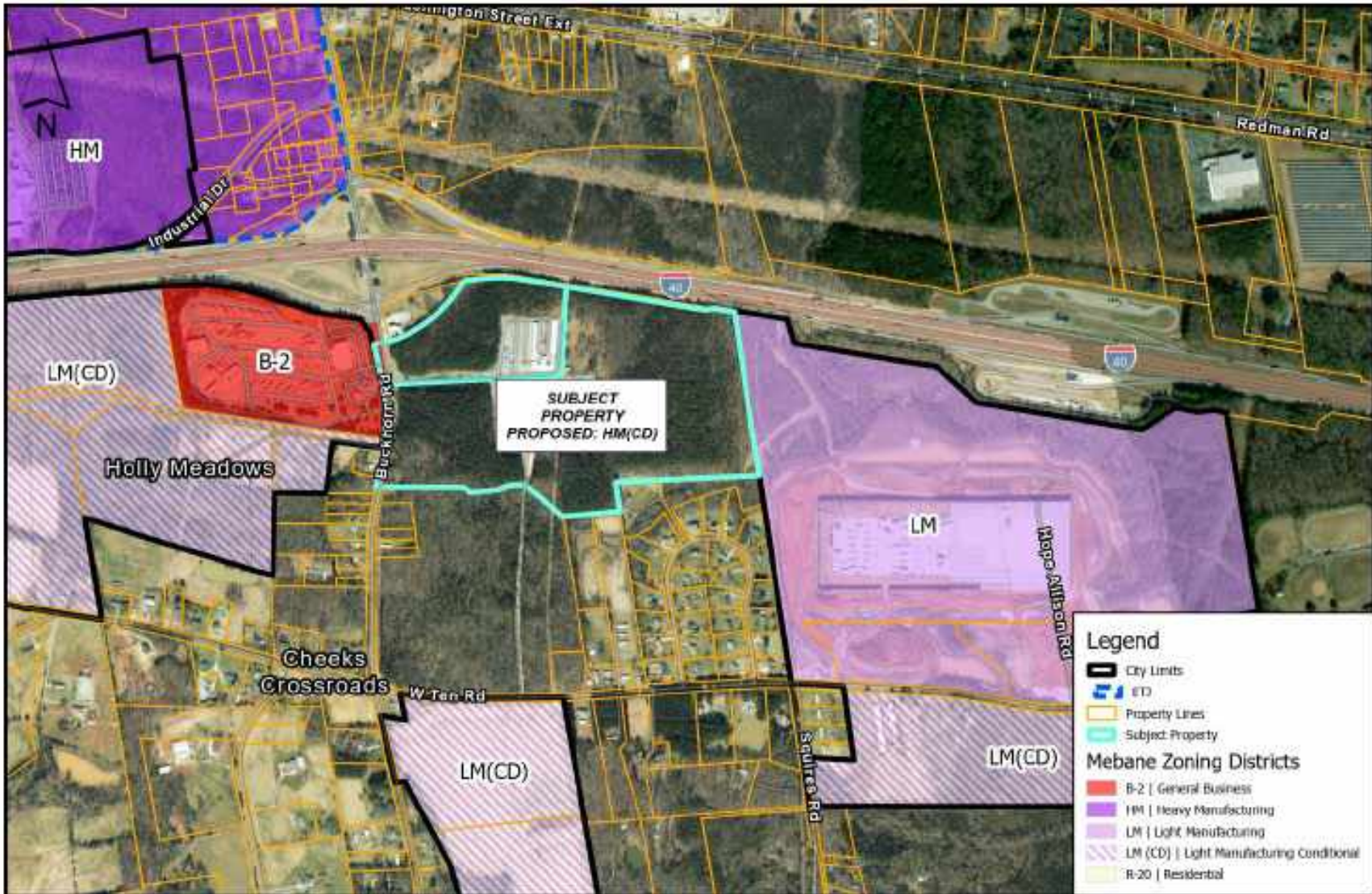
DATE	06/05/2024
PROJECT NUMBER	RZ 24-04
PROJECT NAME	R+L Carriers Mebane
APPLICANT	Orange County Investors Partnership 120 W. Whitner Street Anderson, SC 29624

CONTENTS

PROJECT NAME & APPLICANT	PAGE 1
ZONING REPORT	PAGE 2
LAND USE REPORT	PAGE 4
UTILITIES REPORT	PAGE 6
STAFF RECOMMENDATION	PAGE 7

ZONING REPORT

EXISTING ZONE	EDB-2 (Orange County, Economic Development Buckhorn Higher Intensity)
REQUESTED ACTION	HM (CD) (Heavy Manufacturing Conditional District)
CONDITIONAL ZONE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
CURRENT LAND USE	Existing flea market; otherwise, vacant and wooded
PARCEL SIZE	+/-83.368 acres
PROPERTY OWNERS	Orange County Investors Partnership 120 W Whitner Road Anderson, SC 29624 GPINs: 9834475147 and 9834568820
LEGAL DESCRIPTION	Request to establish HM(CD), Heavy Manufacturing Conditional, zoning on two properties (GPINs 9834568820 and 9834475147), totaling +/- 83.368 acres, addressed 508 and 510 Buckhorn Road, and located outside of the Mebane Extraterritorial Jurisdiction (ETJ) in Orange County for a trucking/freight terminal by Orange County Investors Partnership.
AREA ZONING & DISTRICTS	Interstate I-40 is located to the north of the site. On the other side of the interstate there are several parcels zoned EDB-2, Economic Development Buckhorn Higher Intensity, by Orange County. The parcel to the immediate east of the subject property is zoned LM, Light Manufacturing by the City of Mebane. The parcels adjacent to the southeastern boundary of the subject property are zoned PDHR1, Planned Development Housing- Rural Residential, and R1, Rural Residential, by Orange County. South of the subject property is the parcel proposed for development by Buckhorn Industrial, currently zoned EDB-2, Economic Development Buckhorn Higher Intensity, by Orange County. The parcels to the immediate west of the subject property, across Buckhorn Road, are zoned LM (CD), Light Manufacturing Conditional, and B-2, General Business, by the City of Mebane and R1, Rural Residential, by Orange County. There is also a parcel adjacent to the northwest corner of the subject property zoned R1, Rural Residential, and NC2, Neighborhood Commercial, by Orange County.
SITE HISTORY	Since at least 2008, the subject property has been the site of the Buckhorn Flea Market. There are no records of previous land uses.
STAFF ANALYSIS	
CITY LIMITS?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
PROPOSED USE BY-RIGHT?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
SPECIAL USE?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
EXISTING UTILITIES?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
POTENTIAL IMPACT OF PROPOSED ZONE	The proposed rezoning is consistent with the property's current zoning district in Orange County and with many of the adjacent zone districts including LM, Light Manufacturing and B-2, General Business. As the property is currently used as a flea market, staff finds that the proposed change to an industrial use is unlikely to increase traffic impacts. A 125-foot landscape buffer is shown between the proposed development and the adjacent neighborhood to the southeast.



**CITY OF MEBANE
ZONING MAP**

**CONDITIONAL REZONING
R+L CARRIERS MEBANE**

1 inch = 1,000 feet

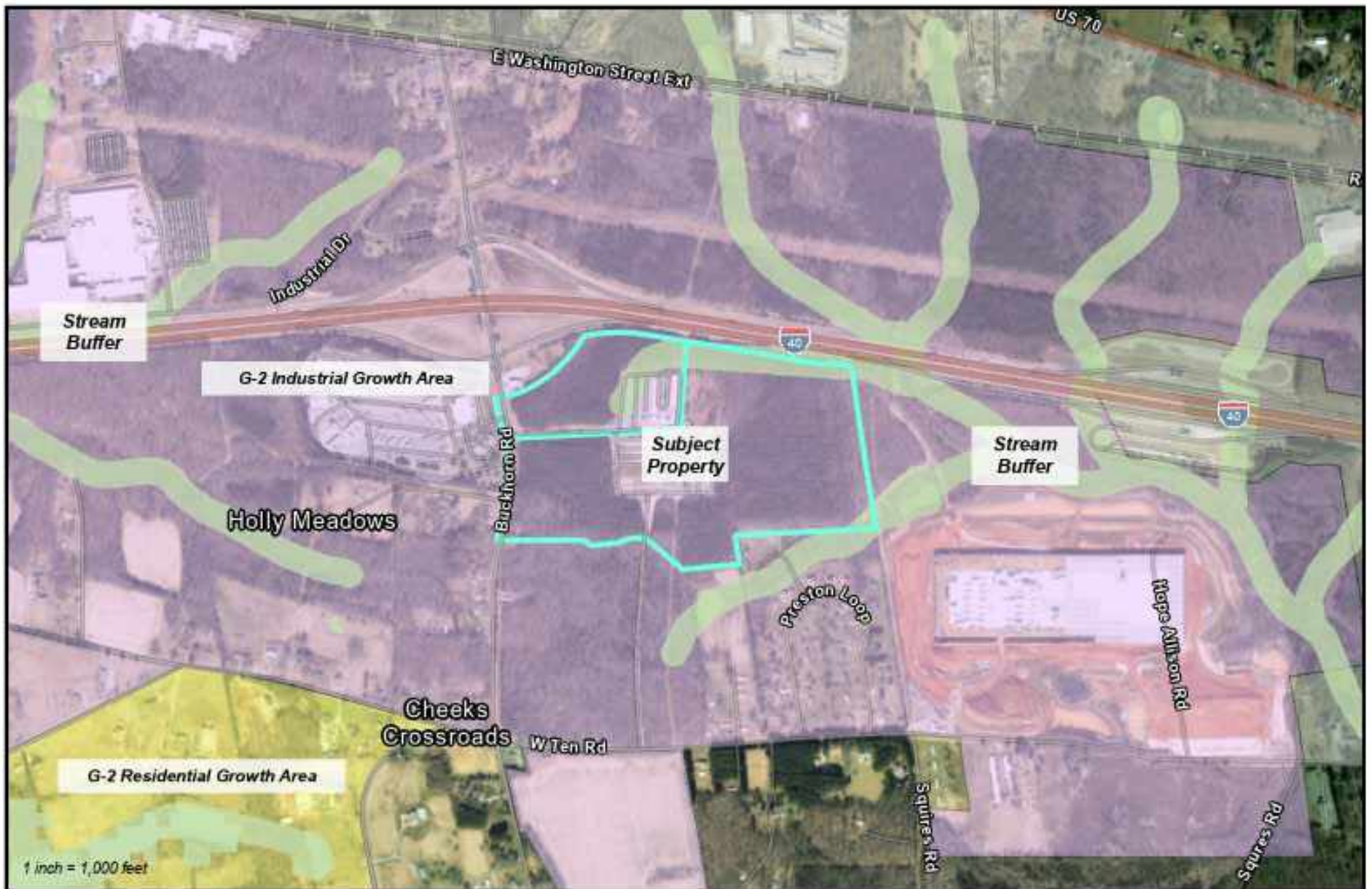
DATE: 06/03/2024

DRAWN BY: RG

LAND USE REPORT

EXISTING LAND USE	Commercial - Flea Market
PROPOSED LAND USE & REQUESTED ACTION	The applicant is requesting a conditional rezoning to develop a trucking and freight terminal on a site area totaling +/-83.368 acres and addressed at 508 and 510 Buckhorn Road. The property is located outside of the Mebane Extraterritorial Jurisdiction (ETJ) in Orange County. A request for annexation into the City of Mebane has been submitted concurrently with the rezoning request. The applicant plans to combine Tract 1 and Tract 3 to create the total site area.
PROPOSED ZONING	HM(CD), Heavy Manufacturing Conditional District
PARCEL SIZE	+/-83.368 acres
AREA LAND USE	Two gas stations and a truck stop are located directly west of the subject property. Buckhorn Business Centre, a light industrial complex currently under construction, is located across Buckhorn Road. The property immediately south is the proposed site for Buckhorn Industrial, a proposed light industrial site that is currently under review for annexation and rezoning. There is an existing residential neighborhood located southeast of the subject property in Orange County's jurisdiction. There is an existing warehouse distribution center immediately east. To the north of the subject property is the I-40 interstate and vacant properties in Orange County's jurisdiction.
ONSITE AMENITIES & DEDICATIONS	A 5' wide sidewalk will be provided along the property's boundaries on Buckhorn Road. Public right-of-way dedication is likely required with roadway improvements.
CONDITIONAL ZONE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
DESCRIPTION OF PROPOSED CONDITIONS	The applicant has not requested or proposed any conditions. Development will be required to follow the submitted site-specific plan and improvements required by the traffic impact analysis (TIA).

CONSISTENCY WITH <i>MEBANE BY DESIGN</i> STRATEGY	
LAND USE GROWTH STRATEGY DESIGNATION(S)	G-2 Industrial (BEDD and North of I-40/85) Conservation Area
OTHER LAND USE CONSIDERATIONS	Upper Eno River Protected Watershed II – Applicant is requesting application of 10/70 Built Upon Area allowance
<i>MEBANE BY DESIGN</i> GOALS & OBJECTIVES SUPPORTED	Growth Management Goal 1.7: Continue to support industrial development at existing industrial parks near I-40/85
<i>MEBANE BY DESIGN</i> GOALS & OBJECTIVES <u>NOT</u> SUPPORTED	



UTILITIES REPORT

AVAILABLE UTILITIES	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
PROPOSED UTILITY NEEDS	Per the memorandum from Franz Holt of AWCK, the anticipated water use for the proposed development is 20,200 gallons per day and the anticipated wastewater use is also 20,200 gallons per day. The development will be served by connecting to Mebane's existing 12-inch water main on Buckhorn Road. A preliminary looped 8-inch fire line is shown with fire hydrants. The site plans call for an 8-inch private sewer connection to Mebane's onsite 8-inch public gravity sewer outfall at the rear of the site.
UTILITIES PROVIDED BY APPLICANT	The applicant has pledged to provide all on-site utilities, as described in AWCK's Technical Memo.
MUNICIPAL CAPACITY TO ABSORB PROJECT	The City has adequate water & sewer supply to meet the domestic and fire flow demands of the project.
CONSISTENCY WITH MEBANE LONG RANGE UTILITY PLAN?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
ADEQUATE STORMWATER CONTROL?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
INNOVATIVE STORMWATER MANAGEMENT?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
TRANSPORTATION NETWORK STATUS	
CURRENT CONDITIONS	<p>The subject property's western boundary is situated next to Buckhorn Road which runs North to South. Buckhorn Road is an NCDOT-maintained undivided two-lane road. It had an average daily traffic volume of 2,100 in 2023.</p> <p>Buckhorn Road received a low Section Safety Score of 78 between 2018-2022 with 17 total crashes reported during that time frame. Fourteen crashes resulted in property damage only and 3 resulted in minor or moderate injuries.</p>
TRAFFIC IMPACT ANALYSIS REQUIRED?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
DESCRIPTION OF RECOMMENDED IMPROVEMENTS	Roadway improvements are required on Buckhorn Road, including: <ul style="list-style-type: none">• An exclusive southbound left-turn lane with 150 feet of storage• An exclusive northbound left-turn lane with 100 feet of storage• An exclusive northbound right-turn lane with 100 feet of storage.

CONSISTENCY WITH THE MEBANE

**BICYCLE AND PEDESTRIAN
TRANSPORTATION PLAN?** YES NO

**MULTIMODAL IMPROVEMENTS
PROVIDED BY APPLICANT?** YES NO

**DESCRIPTION OF MULTIMODAL
IMPROVEMENTS** A 5' wide sidewalk will be provided along the property's
boundaries on Buckhorn Road.

STAFF RECOMMENDATION

STAFF RECOMMENDATION	<input checked="" type="checkbox"/> APPROVE <input type="checkbox"/> DISAPPROVE
STAFF SPECIAL USE FINDING	<input type="checkbox"/> CONSISTENT <input type="checkbox"/> NOT CONSISTENT.....WITH <i>MEBANE BY DESIGN</i>
RATIONALE	The proposed development, "R+L Carriers" is consistent with the guidance provided by <i>Mebane By Design</i> , the Mebane Comprehensive Land Development Plan. Specifically, it will support industrial development recommended for the G-2, Industrial (BEDD and North of I-40/85) Growth Area.



Technical Memo

Date: 6-4-24

From: Franz Holt, City Engineer

To: Ashley Ownbey, Development Director

CC: Austin Watts, PE with Kimley-Horn and Associates, Inc.

Subject: R&L Carriers at Buckhorn Road

The Engineering Department has completed its review of preliminary site plans by Kimley-Horn and Associates, Inc. located in Charlotte NC for a proposed rezoning of property for the proposed specific use of trucking or freight terminal. R&L Carriers intends to construct 135,950 SF truck terminal, 19,800 maintenance building, truck wash building, and fueling island on an 82.53-acre site. Our technical review comments are as follows:

- A. Preliminary Water System Layout– The site plans call for tapping Mebane’s 12-inch public water main on Buckhorn Road. The tap will serve an 8-inch fire supply line and a header pipe with three domestic taps, two of which are 3-inch. Backflow prevention is required for each domestic tap and fire line. A preliminary looped 8-inch fire line is shown with fire hydrants. An on-site fire pump and ground storage tank may be required. These items will be finalized with construction drawing preparation. The city can meet the proposed domestic water of approximately 20,200 gallons per day (gpd) and fire flow needs with finalized on site improvements. I have reviewed the preliminary water system layout, finding it acceptable.
- B. Preliminary Sanitary Sewer System Layout – The site plans call for an 8-inch private sewer connection to Mebane’s onsite 8-inch public gravity sewer outfall at the rear of the site. The city can meet the proposed sewer needs of approximately 20,200 gpd (per 2t rules) at its downstream facilities. I have reviewed the preliminary sewer system layout, finding it acceptable.
- C. Preliminary Storm Sewer Layout – The storm sewer layout shows drainage structures and piping capturing all built upon area and discharging to a storm water control measure (fenced wet pond). I have reviewed the preliminary storm sewer system layout, finding it acceptable.
- D. The developer is providing a sidewalk along the Buckhorn Road property frontage.
- E. Preliminary Stormwater Management Plan– The site is within the Falls Lake and the Upper Eno River (WS-II NSW) non-critical water supply watershed with a maximum built upon area (BUA) of 70% allowed, 53.4% BUA shown. There are nitrogen and phosphorus treatment

requirements per NCDEQ. Stormwater treatment shall also follow City of Mebane requirements for water quality (runoff from 1-inch rain and quantity (10-year design storm post peak runoff development vs. pre-development). One storm water control measure is shown (fenced wet pond). Engineering has reviewed the preliminary stormwater management plan, finding it acceptable.

- F. TIA Analysis and Roadway Connection– One roadway connection is proposed to Buckhorn Road (SR 1114) directly opposite the Buckhorn Business Centre roadway connection with one site ingress lane and one site egress lane. In addition, Kimley-Horn Associates, Inc. has completed a TIA which has been reviewed by Mebane’s consultant VHB and NCDOT. Improvements to Buckhorn Road include an exclusive southbound left-turn lane with 150 feet of storage, and exclusive northbound left-turn lane with 100 feet of storage, and a northbound right turn lane with 100 feet of storage all with appropriate transitions.
- G. Site Construction Drawings – Site construction drawings is required for TRC review and approval along with a flood study.
- H. An existing public gas main through the site is to be rerouted around the improved site.
- I. Annexation and public right-of-way dedication is required (along Buckhorn Road) with the development.

To access the TIA,
[click here.](#)



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

November 13, 2023

ORANGE COUNTY

Earl R. Lewellyn, PE
Kimley-Horn and Associates, Inc.
300 Morris Street, Suite 200
Durham, NC 27701

Subject: Proposed R+L Carriers Located on SR 1114 (Buckhorn Road)
Review of Traffic Impact Analysis (TIA)

Dear Mr. Lewellyn,

NCDOT staff has completed a collaborative review with the City of Mebane of the above subject. Based on the information provided we offer the following comments with regard to the state road network.

General:

The proposed site is located generally east of Buckhorn Road between I-40 and Rabbit Run Lane in Orange County, North Carolina. The proposed site consists of approximately 215,000 square-feet (SF) truck terminal and is expected to generate approximately 1,124 new daily trips upon full build out in 2025. Site access is proposed via one full-movement driveway along Buckhorn Road.

Findings and Requirements:

Based on the information provided and as a condition of the pending driveway permit, the developer will be required to construct the following road improvements to mitigate the anticipated impacts of site traffic.

Buckhorn Road Site Driveway:

- Construct a full movement driveway with one ingress lane and one egress lane under stop-control aligned with Rabbit Run Lane.
- Provide a minimum of 100 feet of internal protection stem (IPS) length.
- Construct an exclusive southbound left-turn lane with 150 feet of storage and appropriate transitions per NCDOT requirements.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION 7, DISTRICT 1
PO BOX 766
GRAHAM, NC 27253-0766

Telephone: (336) 570-6833
Fax: (336) 570-6873
Customer Service: 1-877-368-4968

Location:
115 EAST CRESCENT SQUARE DRIVE
GRAHAM, NC 27253

Website: www.ncdot.gov

- Construct an exclusive northbound left-turn lane with 100 feet of storage and appropriate transitions per NCDOT requirements to provide appropriate intersection geometry.
- Construct an exclusive northbound right-turn lane with 100 feet of storage and appropriate transitions per NCDOT requirements.

Multi-modal and Streetscape Enhancements:

Any locally stipulated multi-modal enhancements including but not limited to sidewalk, bike lanes, bus pull offs, lighting, landscaping etc. on State maintained routes are subject to NCDOT requirements and approval through the encroachment process.

General Requirements:

It is necessary to obtain an approved driveway permit and/or encroachment agreement(s) prior to performing work on the NCDOT right of way. As a condition of the permit, the permittee shall be responsible for design and construction of the above stipulated improvements in accordance with NCDOT requirements. An approved permit will be issued upon receipt of approved site plan, roadway and signal construction plans as needed, inspection fee, and any necessary performance and indemnity bonds.

The applicant shall dedicate any additional right of way necessary to accommodate the required road improvements or future improvements as stipulated.

The applicant shall verify that the proposed street and driveway connections provide for adequate vertical and horizontal sight distances in accordance with NCDOT requirements.

Intersection radii and geometry shall be designed to accommodate turning movements of the largest anticipated vehicle.

All pavement markings shall be long life thermoplastic. Pavement markers shall be installed if they previously existed on the roadway.

The permittee shall be responsible for the installation and relocation of any additional highway signs that may be necessary due to these improvements and shall comply with the requirements of the MUTCD.

Feel free to contact me if you have any questions.

Sincerely,



C. N. Edwards Jr., PE
District Engineer

Cc: W.R. Archer, III, PE, Division Engineer
D.M. McPherson, Division Traffic Engineer
Nicholas C. Lineberger, PE, Regional Engineer
City of Mebane



Memorandum

To: Ashley Ownbey
Development Director
City of Mebane

Date: November 17, 2023

C. N. Edwards Jr., PE
District Engineer
NCDOT Highway Division 7 District 1

Project #: 39160.00, Task 20

From: Baohong Wan, PhD, PE

Re: R+L Carriers Mebane Traffic Impact Analysis
Technical Review
Mebane, NC

A Traffic Impact Analysis (TIA) was prepared by Kimley-Horn and Associates for the proposed R+L Carriers – Mebane development located on the east side of Buckhorn between I-40/ I-85 and West Ten Road in Mebane, North Carolina. Per request by the City of Mebane, VHB conducted an independent review of the R+L Carriers – Mebane TIA. This memo provides a list of critical findings, followed by an in-depth summary of study process and analysis results of the TIA.

List of Mitigation Recommendations

The following items in red should be considered in addition to mitigation measures that have been identified within the R+L Carriers – Mebane TIA:

- › Buckhorn Road and Rabbit Run Lane/ Site Access
 - Construct Site Access driveway (aligned with Rabbit Run Lane) with one ingress and one egress lane **under stop-control**.
 - **Provide a minimum of 100 feet of internal protection stem (IPS) length.**
 - Construct a southbound left-turn lane with 150 feet of storage and appropriate taper.
 - **Construct a northbound left-turn lane with 100 feet of storage and appropriate taper.**
 - **Construct an exclusive northbound right-turn lane with 100 feet of storage and appropriate taper.**
 - Preserve right-of-way for future widening along Buckhorn Road and potential signalization at this location.
- › Project Coordination
 - **Coordinate with Buckhorn Business Centre to ensure proper lane alignment and adequate sightlines on both sides of Buckhorn Road.**
 - **Coordinate with Ellison Property to maintain lane continuity and design consistency along Buckhorn Road.**
- › Multimodal Considerations: **Compliance of multimodal transportation requirements should be examined to ensure adequacy of pedestrian, bike, and transit facilities on Buckhorn Road along the property frontage.**

General Comments

The proposed Site Access will be located approximately 300 feet from the truck access for the existing Petro site to the north. Access management strategies should be examined along Buckhorn Road with the proposed Buckhorn Business Center, R+L Carriers – Mebane, and Ellison Property and existing Petro and Flea Market.

VHB Engineering NC, P.C. (C-3075)

Engineers | Scientists | Planners | Designers

Venture I, 940 Main Campus Drive, Suite 500, Raleigh, North Carolina 27606

P 919.829.0328 F 919.833.0034 www.vhb.com

Summary of TIA Assumptions and Results

Development Plan

The proposed R+L Carriers - Mebane development will consist of a 215,000 square foot (sf) truck terminal.

Due to lack of reliable data for truck terminal facilities in the ITE *Trip Generation Manual*, local data were utilized to develop trip generation rates and equations to predict the AM and PM peak hour site trips for the proposed development. According to the TIA, the proposed development is expected to generate 1,124 daily trips with 124 trips (77 entering, 47 exiting) occurring in the AM peak hour and 110 trips (57 entering, 53 exiting) occurring in the PM peak hour.

Site access will be provided via a single full movement driveway on Buckhorn Road. The site driveway is approximately 300 feet south of the existing Petro Truck Access (Wynn Lane).

Study Area and Analysis Scenarios

The TIA included capacity analyses during the weekday AM and PM peak hours under the following scenarios:

- › Existing (2023) Conditions
- › Background (2025) Conditions
- › Build-out (2025) Conditions

Through coordination with NCDOT and the City of Mebane, the following intersections were analyzed in the TIA:

- › Buckhorn Road at I-40 WB/ I-85 SB Ramps (unsignalized)
- › Buckhorn Road at I-40 EB/ I-85 NB Ramps (unsignalized)
- › Buckhorn Road at West Ten Road (unsignalized)
- › Buckhorn Road at Rabbit Run Lane/ Site Driveway (future unsignalized)

Existing and No-Build Analysis Assumptions

Existing (2023) analysis was conducted based on traffic counts collected in December 2022 and May 2023 during weekday AM (7 to 9 AM) and PM (4 to 6 PM) peak hours while area schools were in session.

The No-Build scenario included an annual growth rate of one-half percent (0.5%) between the existing year (2023) and the future analysis year (2025). In addition, site trips due to the following adjacent development were identified and included in the future year analyses:

- › Buckhorn Business Centre
- › Exeter South Outparcels
- › Medline North Outparcel
- › Project Skywalker
- › West Ten Industrial
- › Ellison Property (currently under review)

The NCDOT is committed to installing traffic signals at both ramp intersections at the I-40/ I-85 and Buckhorn Road interchange before the build-out of the development takes place. The traffic signals were analyzed under No-Build (2025) and Build-out (2025) conditions.

Trip Generation & Distribution

Trip generation potential was determined based on methodology derived from local data observed at various R+L facilities due to the lack of reliable data for truck terminal facilities within the ITE Trip General Manual.

Traffic assignment for the development was based on the following trip distribution assumptions:

- › 40% to/from the west via I-40/ I-85
- › 35% to/from the east via I-40/ I-85
- › 10% to/from the east via West Ten Road
- › 5% to/from the west via West Ten Road
- › 5% to/from the north via Buckhorn Road
- › 5% to/from the south via Buckhorn Road

Capacity Analysis Results

Capacity analyses in the TIA were conducted following the NCDOT Congestion Management Capacity Analysis Guidelines. The analysis results and mitigation determinations are summarized below for each individual intersection, while LOS and delay are reported and summarized for stop-controlled approaches at unsignalized intersections.

Buckhorn Road at I-40 WB/ I-85 SB Ramps (future signalized)

ID	Intersection and Approach	Existing (2023)		Background (2025)		Build-out (2025)	
		AM	PM	AM	PM	AM	PM
1	Buckhorn Road at I-40 WB/ I-85 SB Ramps	N/A	N/A	B (19.2)	B (13.2)	C (22.4)	B (14.5)
	Westbound	B-14.9	C-23.0	C-33.4	B-19.8	D-38.3	C-20.1
	Northbound	---	---	A-9.6	A-5.3	B-12.8	A-8.1
	Southbound	---	---	B-17.1	B-12.5	B-19.3	B-13.9

The TIA indicated that the future signalized intersection is expected to operate at LOS B or C during both peak hours under Build-out conditions. Since the intersection is expected to operate acceptably with the development in place, no improvements were recommended in the TIA.

Buckhorn Road at I-40 EB/ I-85 NB Ramps (future signalized)

ID	Intersection and Approach	Existing (2023)		Background (2025)		Build-out (2025)	
		AM	PM	AM	PM	AM	PM
2	Buckhorn Road at I-40 EB/ I-85 NB Ramps	N/A	N/A	A (9.9)	B (12.3)	B (10.1)	B (11.6)
	Eastbound	F-76.4	D-32.8	B-19.8	C-29.5	B-19.3	C-28.8
	Northbound	---	---	B-13.6	A-8.7	B-13.3	A-8.6
	Southbound	---	---	A-3.6	A-6.6	A-4.0	A-4.8

The TIA indicated that the future signalized intersection is expected to operate at LOS B during both the AM and PM peak hours under Build-out conditions. Since the intersection is expected to operate acceptably with the development in place, no improvements were recommended in the TIA.

Buckhorn Road at West Ten Road (unsignalized)

ID	Intersection and Approach	Existing (2023)		Background (2025)		Build-out (2025)	
		AM	PM	AM	PM	AM	PM
3	Buckhorn Road at West Ten Road	B (12.6)	A (8.8)	E (40.3)	B (11.2)	E (44.9)	B (11.6)
	Eastbound	B-11.9	A-8.8	C-24.1	B-10.2	C-24.5	B-10.5
	Westbound	A-9.7	A-8.7	B-15.0	B-11.9	C-15.4	B-12.2
	Northbound	A-9.7	A-8.6	B-13.0	A-9.9	B-13.2	B-10.1
	Southbound	B-14.7	A-9.1	F-66.0	B-11.5	F-76.2	B-12.0

The TIA indicated that the stop-controlled southbound approach is expected to decline to operate at LOS F during the AM peak under the Background and Build-out conditions. The development is anticipated to contribute a minimal amount of traffic to this intersection with poor operations being attributed to background development and nearby Gravelly Middle School. Therefore, no improvements were recommended in the TIA for this intersection.

Buckhorn Road at Rabbit Run Lane/ Site Access (unsignalized)

ID	Intersection and Approach	Existing (2023)		Background (2025)		Build-out (2025)	
		AM	PM	AM	PM	AM	PM
4	Buckhorn Road at Rabbit Run Lane/ Site Access	N/A	N/A	N/A	N/A	N/A	N/A
	Eastbound	A-0.0	A-0.0	C-19.9	C-18.3	E-40.8	D-33.0
	Westbound	---	---	---	---	C-19.7	B-13.5

The TIA indicated that the proposed Site Access driveway is projected to operate at LOS C during the AM peak hour and LOS B during the PM peak hour. Existing Rabbit Run Lane is proposed to serve as the site access for the Buckhorn Business Centre and will operate at LOS E during the AM peak hour and LOS D during the PM peak hour. The following improvements were recommended in the TIA for the Site Access connection.

- › Construct a full movement driveway with one ingress lane and one egress lane aligned with existing Rabbit Run Lane.
- › Construct an exclusive southbound left-turn lane with 150 feet of storage and appropriate taper.

The proposed Buckhorn Business Centre Driveway (Rabbit Run Lane) is expected to operate at LOS E during the AM peak hour with the proposed R+L Carriers development in place. Peak hour signal warrants are not anticipated to be met with both developments in place; however, the intersection should continue to be monitored after both developments are fully built-out to determine if signalization may be needed in the future.

Although the TIA indicated that traffic volumes would not meet warrants for installing an exclusive right-turn lane along northbound Buckhorn Road, a right-turn lane should be provided due to planning considerations and to provide adequate safety and capacity to accommodate truck traffic. In addition, a dedicated northbound left-turn lane should be provided for safety and design considerations, particularly since a traffic signal will eventually be installed at this intersection under the future year conditions.

Coordination with Buckhorn Business Centre should take place to ensure that both driveways are designed with adequate sight lines and travel lane alignment. Coordination with Ellison Property should be required to maintain lane continuity and design consistency along Buckhorn Road.

AGENDA ITEM #6E

Ordinance to Extend the Corporate Limits-
Voluntary Contiguous Annexation-
Orange County Investors Partnership and Joe
Fearington- Tract 2 Buckhorn Industrial

Meeting Date

July 1, 2024

Presenter

Lawson Brown, City Attorney

Public Hearing

Yes No

Summary

The Council will consider the approval of an Ordinance to Extend the Corporate Limits as the next step in the annexation process. This is a voluntary contiguous annexation of +/- 49.267 acres in Orange County on Buckhorn Road.

Background

At the June 3, 2024, Council Meeting, the Council accepted the petition for annexation and the Clerk's certificate of sufficiency and adopted a Resolution setting a date of Public Hearing for July 1, 2024, to consider approval of extending Mebane's corporate limits. The Public Hearing Notice was properly advertised.

Financial Impact

The property and improvements will be added to the ad valorem tax base for the City once the property is annexed as determined by the state statute.

Recommendation

Staff recommends the adoption of an Ordinance to Extend the Corporate Limits of the City of Mebane, North Carolina.

Suggested Motion

I move to adopt an Ordinance to Extend the Corporate Limits of the City of Mebane, North Carolina to include the +/- 49.267 acres.

Attachments

1. Ordinance
2. Map

AN ORDINANCE TO EXTEND THE CORPORATE LIMITS
OF THE CITY OF MEBANE, NORTH CAROLINA

Mail after recording to: City of Mebane, Attn: City Clerk, 106 E. Washington Street, Mebane, NC 27302

Ordinance No. 171

WHEREAS, the City Council has been petitioned under G.S. 160A-31 to annex the area described below; and

WHEREAS, the City Council has by resolution directed the City Clerk to investigate the sufficiency of the petition; and

WHEREAS, the City Clerk has certified the sufficiency of the petition and a public hearing on the question of this annexation was held at the Glendel Stephenson Municipal Building at 6:00 p.m. on July 1, 2024, after due notice by the News of Orange on June 19, 2024, and the Alamance News on June 20, 2024; and

WHEREAS, the City Council finds that the petition meets the requirements of G.S. 160A-31;

NOW THEREFORE, BE IT ORDAINED by the City Council of the City of Mebane, North Carolina that:

Section 1. By virtue of the authority granted by G.S. 160A-31, the following described territory is hereby annexed and made part of the City of Mebane as of July 1, 2024:

Lying and being situate in Cheeks Township, Orange County, North Carolina, and being all the property referenced as Tax ID: 9834-47-5147 (Orange County Investors (Deed Book 475, Page 583), Tax ID: 9834-45-4704 (Orange County Investors (Deed Book 6750, Page 1549), Tax ID: 9834-35-7977 (Orange County Investors (Deed Book 6837, Page 1720), Tax ID: 9834-35-7585 (Orange County Investors (Deed Book 6821, Page 1106), Tax ID: 9834-35-7650 (Orange County Investors (Deed Book 6820, Page 1516), Tax ID: 9834-35-7666 (Joe Louis Fearington (Deed Book 392, Page 394) and Tax ID: 9834-35-7842 (Joe Louis Fearington (Deed Book 226, Page 403) and being more particularly described as follows:

BEGINNING at a point in the centerline of West Ten Road having North Carolina Geodetic Coordinates (NAD 83/2011) of: Northing: 844,574.96 feet, Easting: 1,935,011.31 feet and said point being the POINT OF BEGINNING:

THENCE with the centerline of West Ten Road the following Seven (7) calls: (1) South 88°37'35" West, 247.30 feet to a point; (2) South 89°31'45" West, 127.50 feet to a point; (3) South 89°38'04" West, 371.48 feet to a point; (4) North 87°44'19" West, 130.27 feet to a point; (5) North 82°30'05" West, 228.75 feet to a point; (6) North 78°13'11" West, 95.94 feet to a point; (7) North 76°50'00" West, 115.19 feet to a point in the intersection with Buckhorn Road;

THENCE with the centerline of Buckhorn Road the following Six (6) calls: (1) North 10°09'48" West, 131.39 feet to a point; (2) North 2°43'44" West, 110.35 feet to a point; (3) North 0°46'49" East, 706.75 feet to a point; (4) North 0°02'17" West, 86.48 feet to a point; (5) with a curve to the right having an arc distance of 357.56 feet and radius of 1628.10 feet, a chord

bearing and distance of North 06°50'34" East, 356.85 feet to a point; (6) North 12°01'20" East, 76.23 feet to a point in a new line of division;

THENCE with the New Line of Division the following Eight (8) calls: (1) South 89°54'53" East, 589.48 feet to a new corner; (2) South 80°15'27" East, 37.02 feet to a new corner; (3) South 47°56'04" East, 50.35 feet to a new corner; (4) North 84°08'37" East, 206.76 feet to a new corner; (5) North 67°06'44" East, 70.75 feet to a new corner; (6) North 78°44'00" East, 42.24 feet to a new corner; (7) North 88°59'45" East, 87.85 feet to a new corner; (8) South 49°56'49" East, 363.36 feet to an existing 7/8" pipe being a common corner with Jeffrey B. Ellis (Deed Book 6788, Page 546);

THENCE continuing with the line of Fay Ann Simmons Kirkpatrick (Deed Book 3676, Page 255) and Jeffrey B. Ellis (Deed Book 6788, Page 546) South 8°53'29" East, 992.15 feet to an existing 1/2" pipe being a common corner with Jeffrey B. Ellis (Deed Book 6788, Page 549);

THENCE with the common line of Jeffrey B. Ellis (Deed Book 6788, Page 549) the following Two (2) calls: (1) South 87°45'54" West, 253.85 feet to an existing 3/4" pipe; (2) South 4°58'18" East, 327.87 feet to the POINT OF BEGINNING containing 49.267 Acres or 0.077 Square Miles more or less.

Section 2. Upon and after July 1, 2024, the above-described territory and its citizens and property shall be subject to all debts, laws, ordinances, and regulations in force in the City of Mebane and shall be entitled to the same privileges and benefits as other parts of the City of Mebane. Said territory shall be subject to municipal taxes according to G.S. 160A-58.10.

Section 3. The Mayor of the City of Mebane shall cause to be recorded in the office of the Register of Deeds of Orange County and in the office of the Secretary of State at Raleigh, North Carolina, an accurate map of the annexed territory, described in Section 1 above, together with duly certified copy of this ordinance. Such a map shall also be delivered to the Orange County Board of Elections as required by G.S. 163-288.1.

Adopted this 1st day of July 2024.

City of Mebane

Ed Hooks, Mayor

ATTEST:

Stephanie W. Shaw, City Clerk

Approved as to form:

Lawson Brown, City Attorney

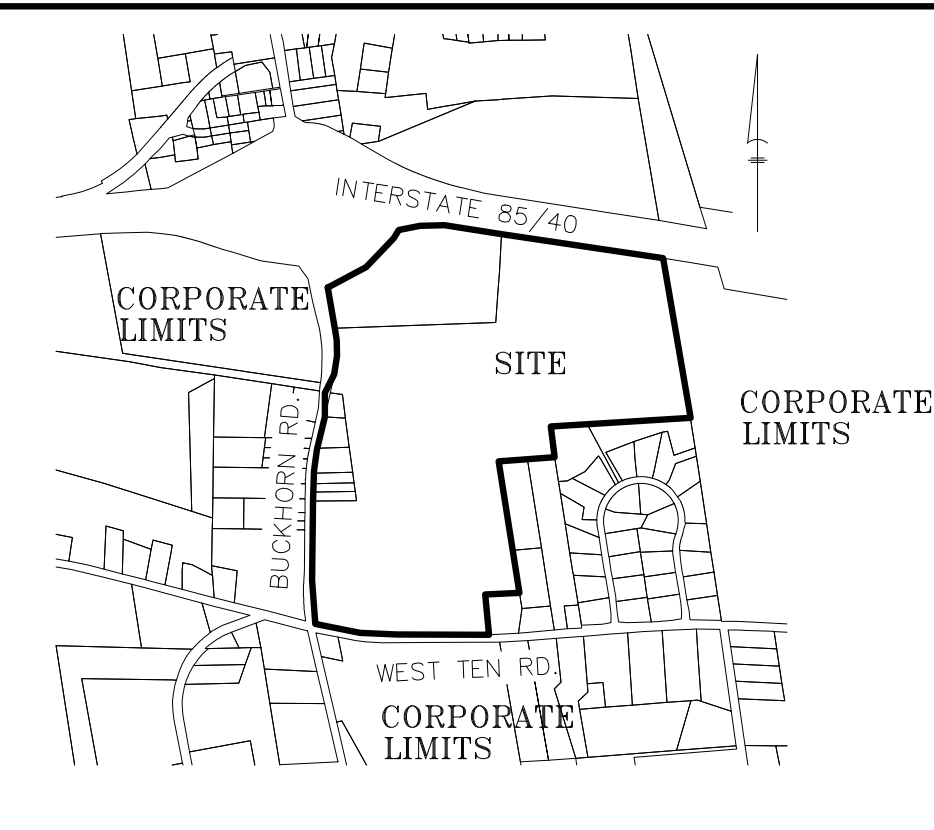
Legend

—	BOUNDARY LINE (SURVEYED)	—	RIGHT OF WAY LINE
—	ADJOINER LINE	—	EASEMENT LINE
—	OVERHEAD POWERLINES	—	SAN. SEWER LINE
—	MINOR CONTOUR LINE	—	FENCE LINE
—	MAJOR CONTOUR LINE		

N/F - NOW OR FORMERLY	S.B. - SETBACK
R/W - RIGHT-OF-WAY	A.E. - ACCESS EASEMENT
DB / PG - DEED BOOK AND PAGE	B.C. - BACK OF CURB
MB / PG - PLAT MAP BOOK AND PAGE	D.I. - DRAIN INLET
F.I.R.M. - FLOOD INSURANCE RATE MAP	CO. - SANITARY CLEANOUT
N.T.S. - NOT TO SCALE	S.T. - SIGHT TRIANGLE
- PROPERTY CORNER AS NOTED	P.D.E. - PRIVATE DRAINAGE EASEMENT
- IRON PIN SET (#5 REBAR)	S.D.E. - STORM DRAIN EASEMENT
CP - CALCULATED POINT	C.G.F. - COMBINED GRID FACTOR
EIP - EXISTING IRON PIN	N.A.E. - NEGATIVE ACCESS EASEMENT
REB - EXISTING REBAR	C&G - CURB & GUTTER
WV - WATER VALVE	WM - WATER METER
HYD - FIRE HYDRANT	FDC - FIRE DEPTH CONN.
CV - GAS VALVE	TW - TOP OF WALL ELEVATION

Notes

- 1) SURVEY WAS COMPLETED 6/15/2023.
- 2) CALCULATED RATIO OF PRECISION BEFORE ADJUSTMENTS IS 1:10,000. TRAVERSE ADJUSTED BY COMPASS RULE METHOD.
- 3) OWNER(S) OF RECORD AS SHOWN HEREON.
- 4) THIS PROPERTY IS LOCATED IN THE NON-SHADED ZONE X, AND IS THEREFORE NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA PER F.E.M.A. FLOOD INSURANCE RATE MAP 3710452100J, DATED MARCH 2, 2009 AND MAP 371045200J, DATED MARCH 2, 2009.
- 5) AREAS (COMPUTED BY COORDINATE METHOD) ARE AS SHOWN HEREON.
- 6) PROPERTY ZONED EDB-2 PER ORANGE COUNTY GIS.
- 7) NO OBSERVABLE EVIDENCE OF BURIAL GROUNDS WITHIN THIS SITE NOR WERE ANY REPORTED TO THIS FIRM.
- 8) THIS PROPERTY MAY OR NOT MAY CONTAIN WETLANDS. NO WETLANDS WERE INVESTIGATED, IDENTIFIED, DELINEATED, LOCATED OR CONFIRMED FOR PURPOSES OF THIS SURVEY.
- 9) PLANNIMETRICS AS SHOWN ARE BASED ON CONVENTIONAL GROUND SURVEY METHODS BY STANTEC.
- 10) DEED AND PLAT REFERENCES USED IN THE DETERMINATION OF BOUNDARY LOCATION ARE AS SHOWN.
- 11) DISTANCES SHOWN HEREON ARE HORIZONTAL GROUND DISTANCES BASED ON THE U.S. SURVEY FOOT.



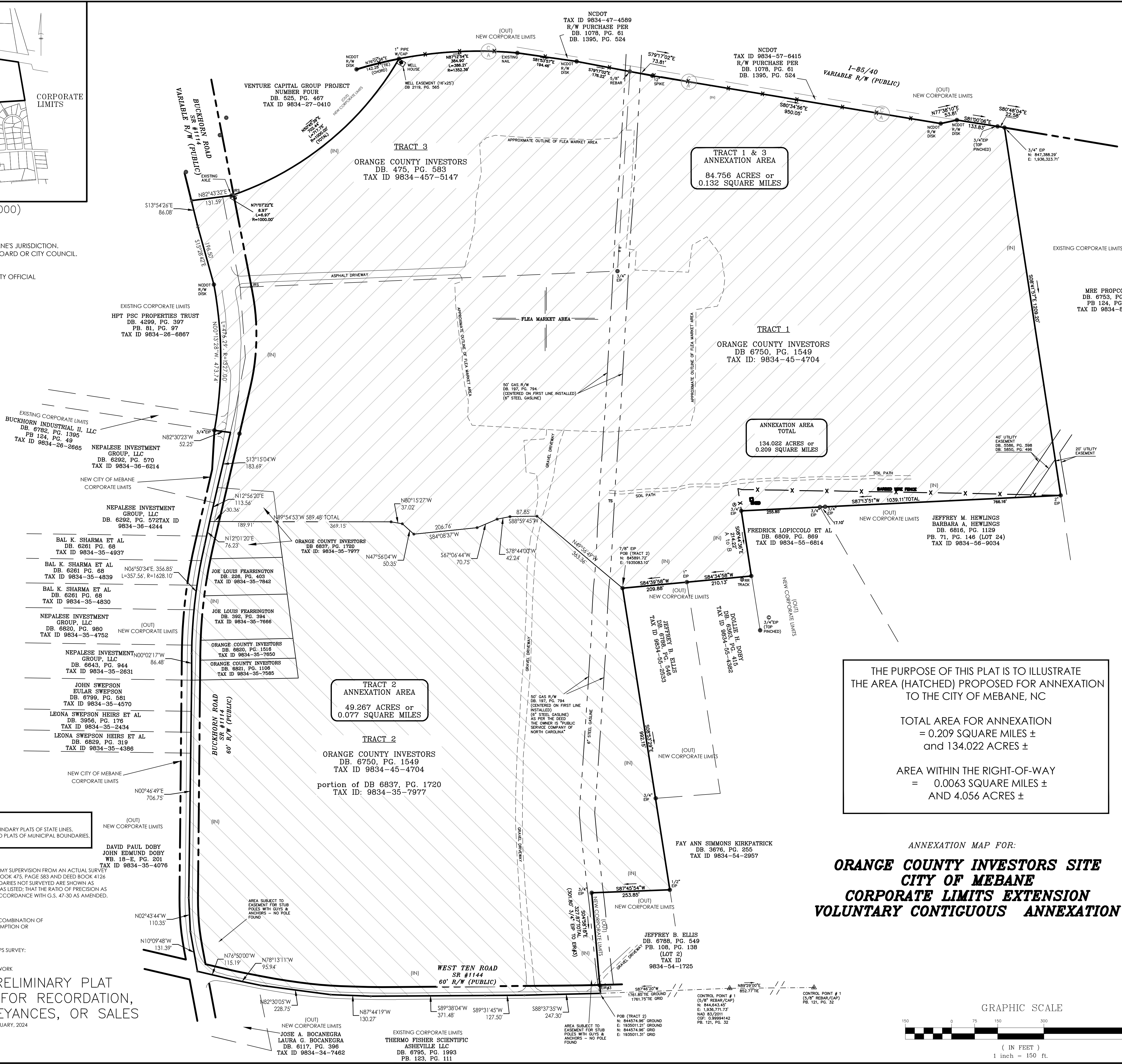
VICINITY MAP (1"=2000)

PLANNING DIRECTOR CERTIFICATION

THIS TRACT OF LAND IS WITHIN THE CITY OF MEBANE JURISDICTION. NO APPROVAL IS REQUIRED OF THE PLANNING BOARD OR CITY COUNCIL.

AUTHORIZED CITY OFFICIAL

DATE



THE PURPOSE OF THIS PLAT IS TO ILLUSTRATE THE AREA (HATCHED) PROPOSED FOR ANNEXATION TO THE CITY OF MEBANE, NC

TOTAL AREA FOR ANNEXATION = 0.209 SQUARE MILES ± and 134.022 ACRES ±

AREA WITHIN THE RIGHT-OF-WAY = 0.0063 SQUARE MILES ± AND 4.056 ACRES ±

ANNEXATION MAP FOR:
ORANGE COUNTY INVESTORS SITE
CITY OF MEBANE
CORPORATE LIMITS EXTENSION
VOLUNTARY CONTIGUOUS ANNEXATION

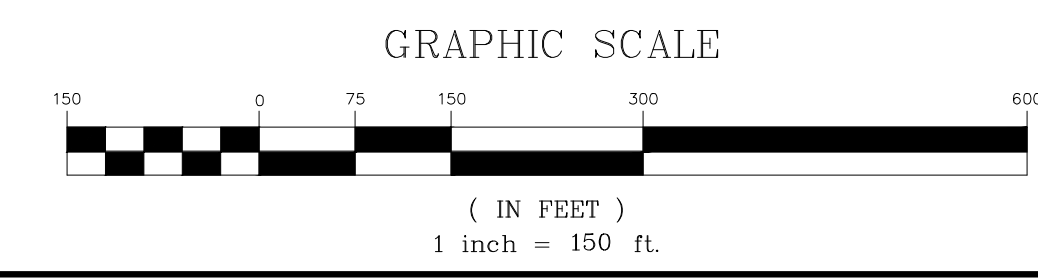
Revision	By	Appd.	YY.MM.DD
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Current Record Owner:
ORANGE COUNTY INVESTORS PARTNERSHIP
120 W WHITNER ROAD
ANDERSON, SC 29624

Client:
KIMLEY-HORN
200 SOUTH TRYIN STREET, SUITE 200
CHARLOTTE, N.C. 28202

ANNEXATION PLAT
GIS PARCEL # 9834-45-4704, 9834-47-5147 & a portion of 9835-35-7977
BEING 134.022 ACRES (ANNEXATION AREA)
CHECKS TOWNSHIP
CITY OF MEBANE
COUNTY OF ORANGE
STATE OF NORTH CAROLINA

Project No.	Scale	Date
234300072	1"=150'	02/15/2024
Drawing No.	Sheet	Revision
MSB_ANNEX.dwg	1 of 1	0



NCGS 47-30 (111) (U)
THE PROVISIONS OF THIS SECTION SHALL NOT APPLY TO BOUNDARY PLATS OF STATE LINES, COUNTY LINES, AREAS ANNEXED BY MUNICIPALITIES, NOR TO PLATS OF MUNICIPAL BOUNDARIES, WHETHER OR NOT REQUIRED BY LAW TO BE RECORDED.

CERTIFICATE OF ACCURACY OF MAPPING

I, DAVID K. ALLEY, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTIONS IN DEED BOOK 475, PAGE 583 AND DEED BOOK 4124, PAGE 223 AND DEED BOOK 6747, PAGE 2162); THAT THE BOUNDARIES NOT SURVEYED ARE SHOWN AS BROKEN LINES PLOTTED FROM INFORMATION FOUND IN DEEDS AS LISTED; THAT THE RATIO OF PRECISION AS CALCULATED IS 1:10,000; THAT THIS MAP WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED.

NCGS 47-30 (111) (U)

THAT THE SURVEY IS OF ANOTHER CATEGORY, SUCH AS THE RECOMBINATION OF EXISTING PARCELS, A COURT-ORDERED SURVEY, OR OTHER EXEMPTION OR EXCEPTION TO THE DEFINITION OF SUBDIVISION:

- THE FOLLOWING INFORMATION WAS USED TO PERFORM THE GPS SURVEY:
- (1) CLASS OF SURVEY: CLASS A
 - (2) POSITIONAL ACCURACY: 0.074
 - (3) TYPE OF GPS FIELD PROCEDURE: RTK, NCGS REAL-TIME NETWORK
 - (4) DATES OF GPS SURVEY: MAY 07, 2019
 - (5) DATUM/EPOCH: NAD83/NSR2011
 - (6) PUBLISHED/FIXED CONTROL USED: NCGS VRS-NETWORK
 - (7) GEOID MODEL: GEOID 12A
 - (8) COMBINED GRID FACTOR: 0.99994142
 - (9) UNITS: US SURVEY FEET

PRELIMINARY PLAT
NOT FOR RECORDATION,
CONVEYANCES, OR SALES

WITNESS MY HAND AND OFFICIAL SEAL THIS 22ND DAY OF FEBRUARY, 2024

L-4492
LICENSE NO. PROFESSIONAL LAND SURVEYOR

DAVID PAUL DOBY
JOHN EDMUND DOBY
WB 18-E, PG. 201
TAX ID 9834-35-4076

JOSE A. BOCANEGRA
LAURA G. BOCANEGRA
DB. 6117, PG. 398
TAX ID 9834-34-7462

EXISTING CORPORATE LIMITS
THERMO FISHER SCIENTIFIC
ASHEVILLE LLC
DB. 6795, PG. 1993
PB. 125, PG. 111



AGENDA ITEM #6F

RZ 24-05

Conditional Rezoning – Buckhorn Industrial

Presenter

Ashley Ownbey, Development Director

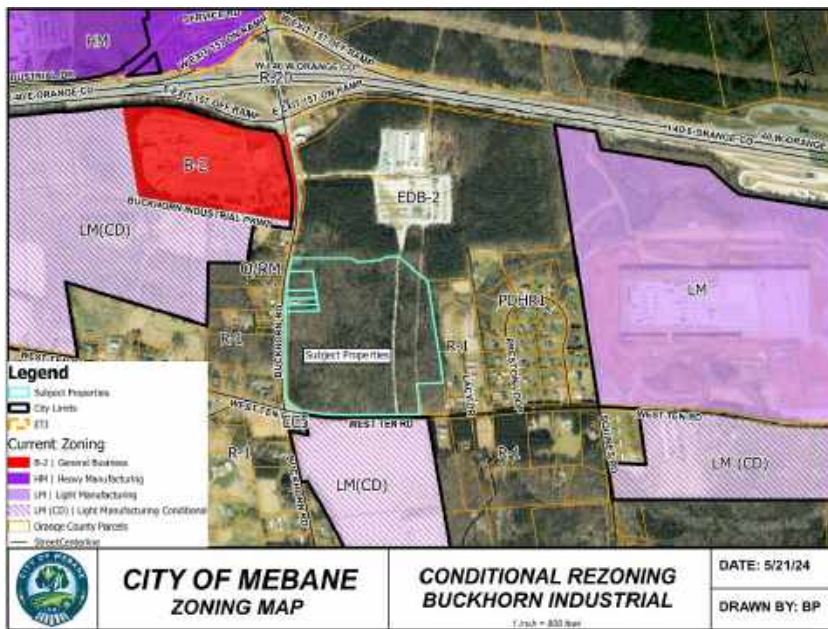
Applicant

Orange County Investor Partnership
 120 W. Whitner St.
 Anderson, SC 29621

Public Hearing

Yes No

Zoning Map



Property

Unaddressed
 706, 710 Buckhorn Road
 Orange County GPINs: 9834454342, 9834357585, 9834357650, 9834357666, and 9834357842

Proposed Zoning

LM(CD)

Current Zoning

Edb-2 (Orange County Economic Development Buckhorn, Higher Intensity)

Size

+/- 49.25 acres

Surrounding Zoning

Orange Co: R-1, O/RM, PDHR1, EC-5, and Edb-2

Mebane: LM(CD), LM

Surrounding Land Uses

Residential, Commercial, Light Industrial, and Vacant

Utilities

Yes

Floodplain

No

Watershed

Yes

City Limits

No

Application Brief

See Planning Project Report for more details.

Recommendations	
Technical Review Committee:	The Technical Review Committee (TRC) has reviewed the site plan four times (not including pre-submittal meetings), and the applicant has revised the plan to reflect the comments.
Planning Staff:	The proposed development “Buckhorn Industrial” is consistent with the guidance provided within <i>Mebane By Design</i> , the Mebane Comprehensive Land Development Plan.
Planning Board:	At their June 10 meeting, the Planning Board voted 6-0 to recommend approval of the conditional rezoning request.
Zoning & Land Use Report	
Jurisdiction:	Orange County
Proposed Use By-Right (Yes/No):	Yes
Type of Rezoning Request:	Conditional
Special Use Request (Yes/No):	No
Consistency with Mebane By Design (Yes/No):	Yes
Utilities Report	
Available Utilities (Yes/No):	Yes
Adequate Stormwater Control (Yes/No):	Yes
Innovative Stormwater Control (Yes/No):	N/A
Consistency with Long-Range Utility Plan (Yes/No):	Yes
Transportation Report	
Traffic Impact Analysis Required (Yes/No):	Yes
Multi-Modal Improvements (Yes/No):	Yes
Consistency with Bike/Ped Transportation Plan (Yes/No):	Yes

Summary

Orange County Investor Partnership is requesting to establish LM(CD), Light Manufacturing Conditional, zoning on five properties (GPINs 9834454342, 9834357585, 9834357650, 9834357666, and 9834357842), totaling +/- 49.25 acres, and located outside of the Mebane Extraterritorial Jurisdiction (ETJ) in Orange County, for a future light industrial development. A request for annexation into the City of Mebane has been submitted concurrently with the rezoning request.

In 1981, Orange County established three Economic Development Districts (EDDs), including the Buckhorn EDD, which includes approximately 900 acres of land and is intended to "...create a district allowing a wide range of non-residential uses with limited higher density residential uses" (Orange County Unified Development Ordinance, p. 3-43). In 1994, Orange County, through a government-initiated land use and zoning change, amended most of the area's zoning to support economic development land uses. The subject properties are in the Buckhorn EDD and zoned EDB-2, Economic Development Buckhorn Higher Intensity, which supports manufacturing, assembly, processing, and distribution uses. Properties to the north and east are also zoned EDB-2. The Medline Distribution Center, which is zoned Light Manufacturing (LM) by Mebane, the Buckhorn Business Centre, which is zoned LM (CD) by Mebane, and the West Ten Industrial development, which is zoned LM (CD) by Mebane and includes Thermo Fisher Scientific, are in the immediate area. The proposed project is consistent with the City and County's stated development goals for the area.

The applicant proposes to develop the properties as a conditional zoning district with a conceptual master plan that shall not be exceeded in intensity. The site plan shows the extent of this intensity, which may total as much as 526,380 square feet of light industrial space along with parking and stormwater controls to support this footprint. As noted on the site plan, the concept is to show general compliance with the Mebane Unified Development Ordinance (UDO). The applicant is requesting flexibility with the orientation, layout placement, and size of the buildings, parking areas, and vehicular access points. Additionally, the applicant has agreed to review future right-of-way dedication at the intersection of Buckhorn Road and West Ten Road with construction plan review.

As required by the Mebane UDO, the developer will construct sidewalks along the site's frontages on Buckhorn Road and West Ten Road. A Traffic Impact Analysis (TIA) was required for the proposed development. Based on recommendations and review of the TIA, the developer is responsible for the following improvements:

Buckhorn Road Site Driveway:

- Construct a full movement driveway with one ingress lane and one egress lane under stop-control.
- Provide a minimum of 100 feet of internal protection stem (IPS) length.
- Construct an exclusive southbound left-turn lane with 150 feet of storage and appropriate transitions per NCDOT requirements.
- Construct an exclusive northbound right-turn lane with 100 feet of storage and appropriate transitions per NCDOT requirements.

West Ten Road Site Driveway:

- Construct a full movement driveway with one ingress lane and one egress lane under stop-control.
- Provide a minimum of 100 feet of internal protection stem (IPS) length.
- Construct a left-turn lane with 100 feet of storage and appropriate transitions per NCDOT requirements.

Financial Impact

The developer will be required to make all of the improvements at their own expense.

Suggested Motion

1. Motion to approve the LM (CD) zoning as presented.
2. Motion to find that **the application is consistent** with the objectives and goals in the City's 2017 Comprehensive Land Development Plan *Mebane By Design*. Specifically, the request:
 - Is for a property within the City's G-2 Industrial Area and is part of the Buckhorn Economic Development District (Mebane CLP, p. 76); and,
 - Serves Growth Management Goal 1.7 through the support of industrial development at existing and developing industrial parks near I-40/85 (p. 17 & 84).

OR

3. Motion to **deny** the LM (CD) rezoning as presented due to a lack of
 - a. Harmony with the surrounding zoning or land use

OR

 - b. Consistency with the objectives and goals in the City's 2017 Comprehensive Land Development Plan *Mebane By Design*.

Attachments

1. Preliminary Presentation Slides
2. Zoning Amendment Application
3. Zoning Map
4. Site Plan – [click here to access.](#)
5. Planning Project Report
6. Technical Memorandum – City Engineering Review
7. Traffic Impact Analysis – [click here to access.](#)
 - a. NCDOT TIA Review
 - b. VHB TIA Review



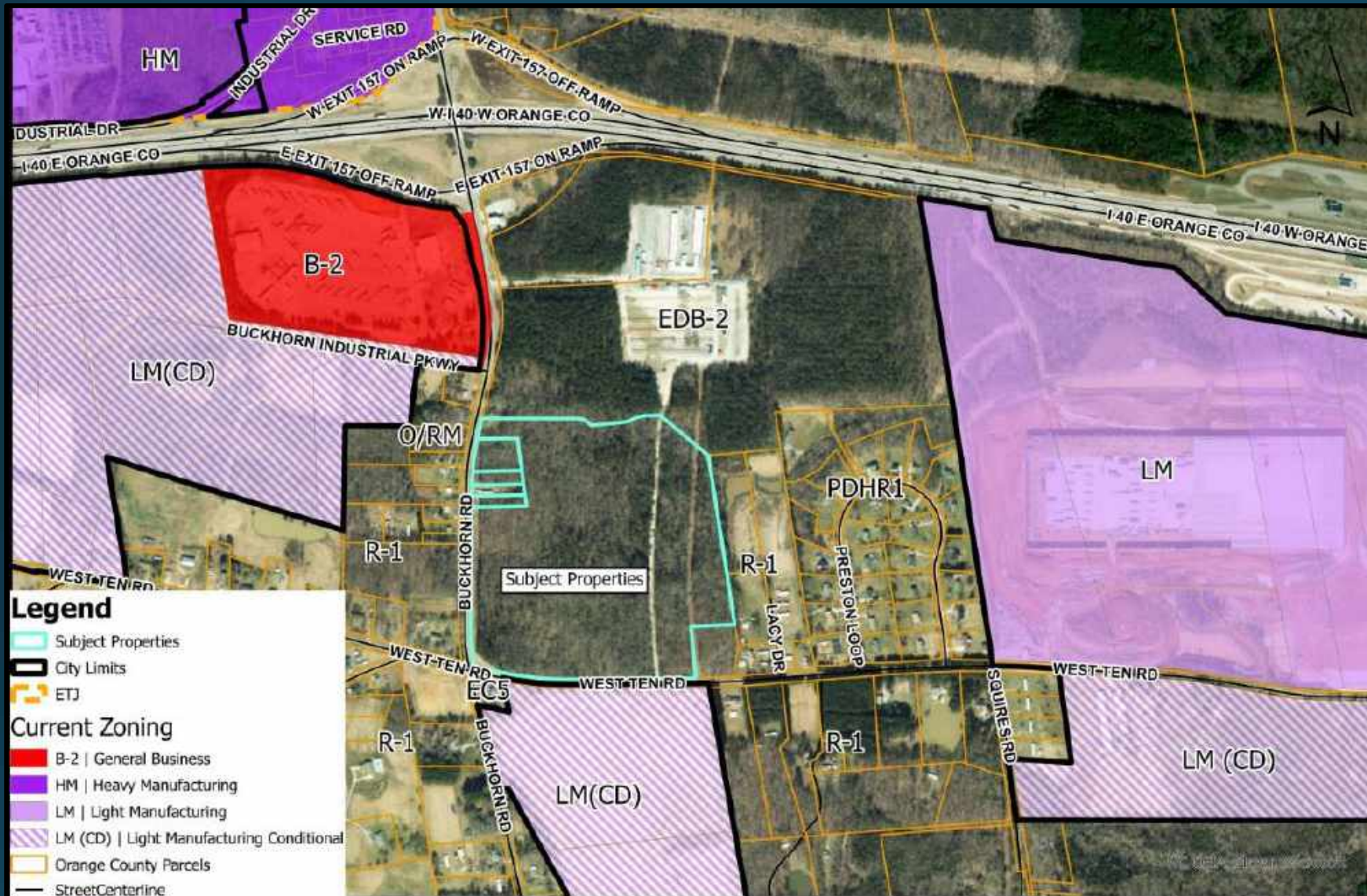
Ashley Ownbey, Development Director

Request to Establish: LM(CD) Zoning
by Orange County Investor Partnership



Buckhorn Industrial Conditional Rezoning

- Request by Orange County Investor Partnership
- 5 properties
- +/- 49.25 acres
- Existing zoning: EDB-2 (Orange County)
- Rezoning Request: LM(CD)



**CITY OF MEBANE
ZONING MAP**

**CONDITIONAL REZONING
BUCKHORN INDUSTRIAL**

1 inch = 800 feet

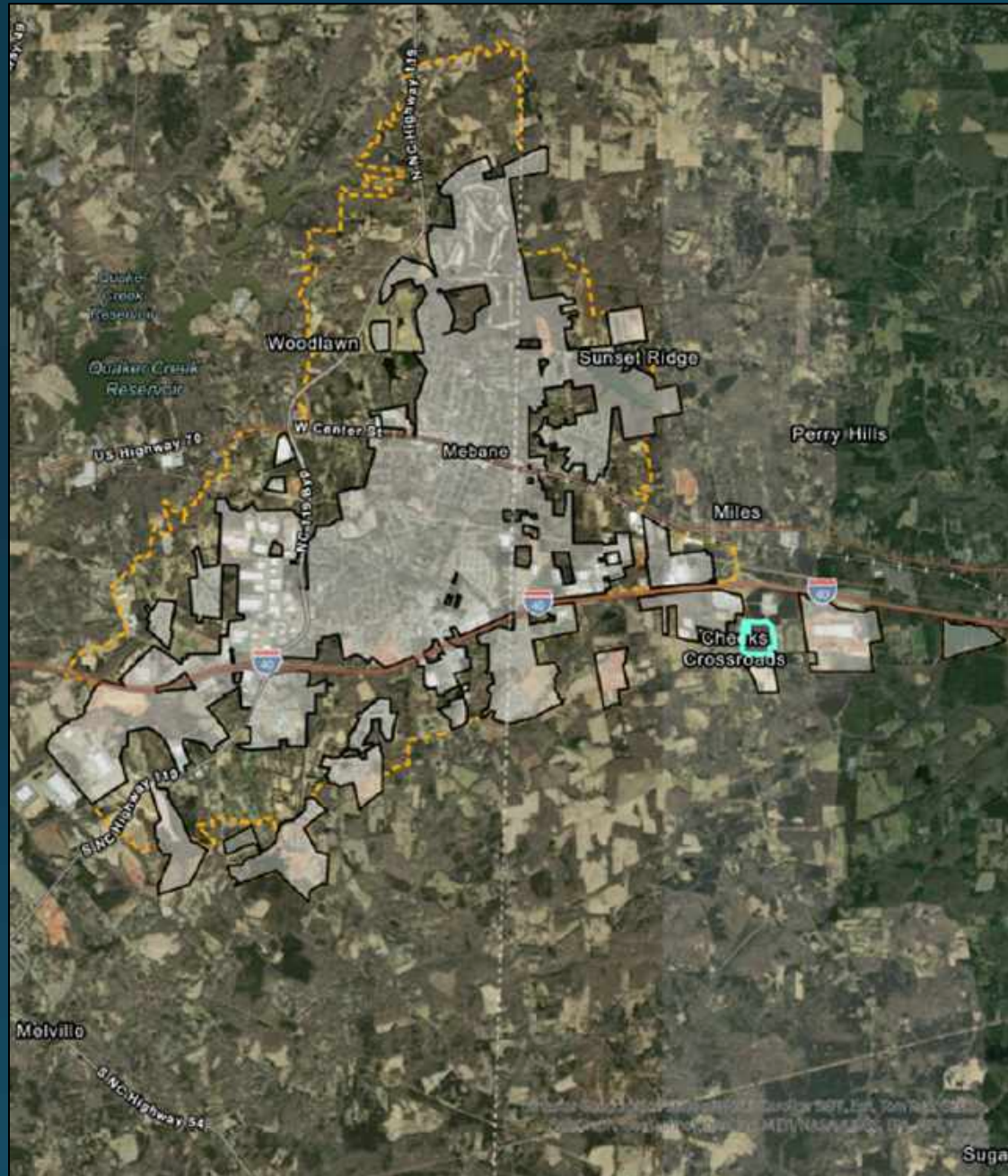
DATE: 5/21/24

DRAWN BY: BP



Buckhorn Industrial Conditional Rezoning

- Orange County
- Annexation request submitted concurrently with rezoning request.
 - The property must be annexed before the City Council can take action on the rezoning request.





Buckhorn Industrial Conditional Rezoning

- Vacant, Single-Family Residential
- Surrounding uses include:
 - Single-Family Residential
 - Small car dealership
 - Industrial: Thermo Fisher Scientific, Medline

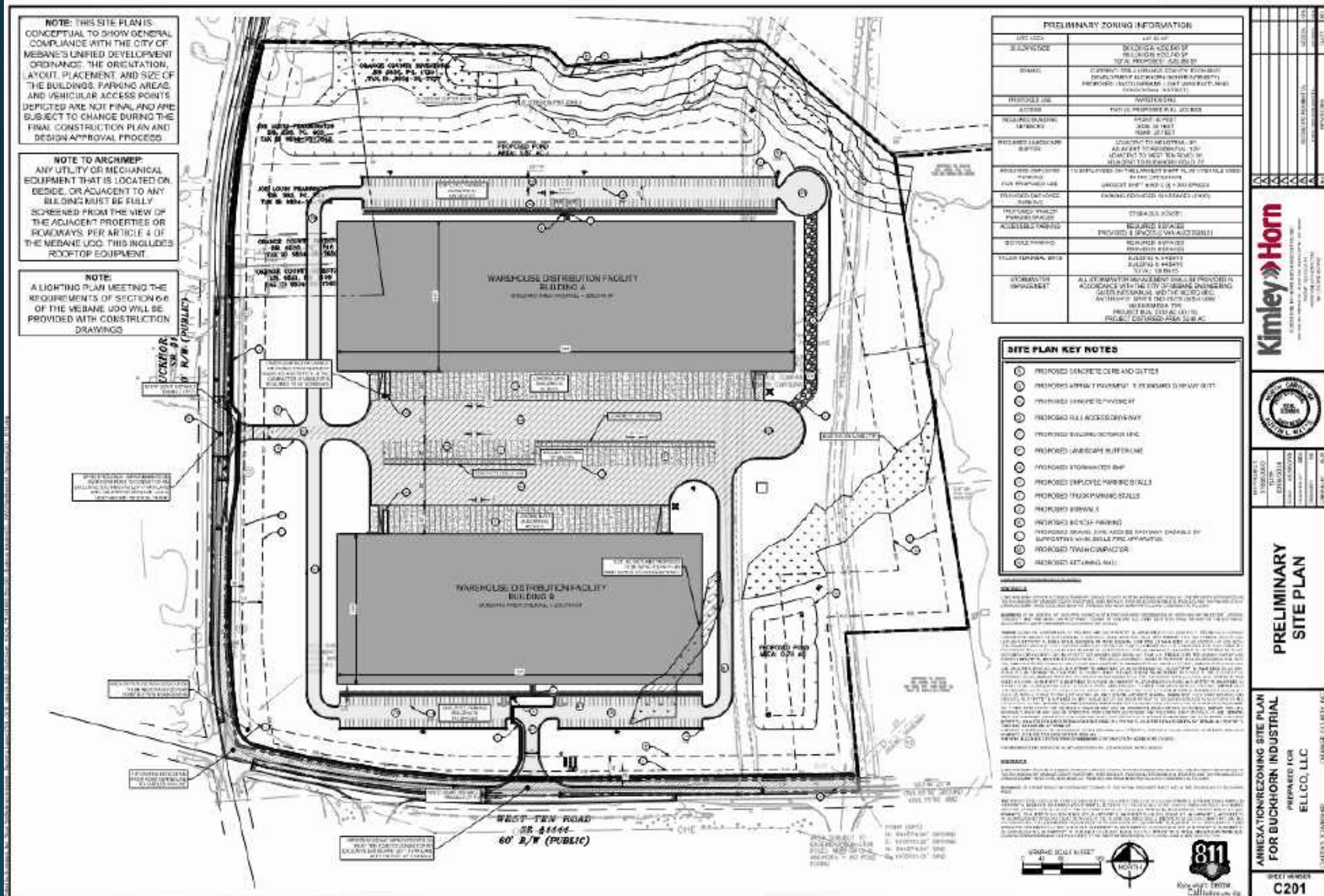




Buckhorn Industrial Conditional Rezoning

Mebane By Design, G-2 Industrial Growth Area (Part of Buckhorn Economic Development District); Conservation Area





Buckhorn Industrial Conditional Rezoning

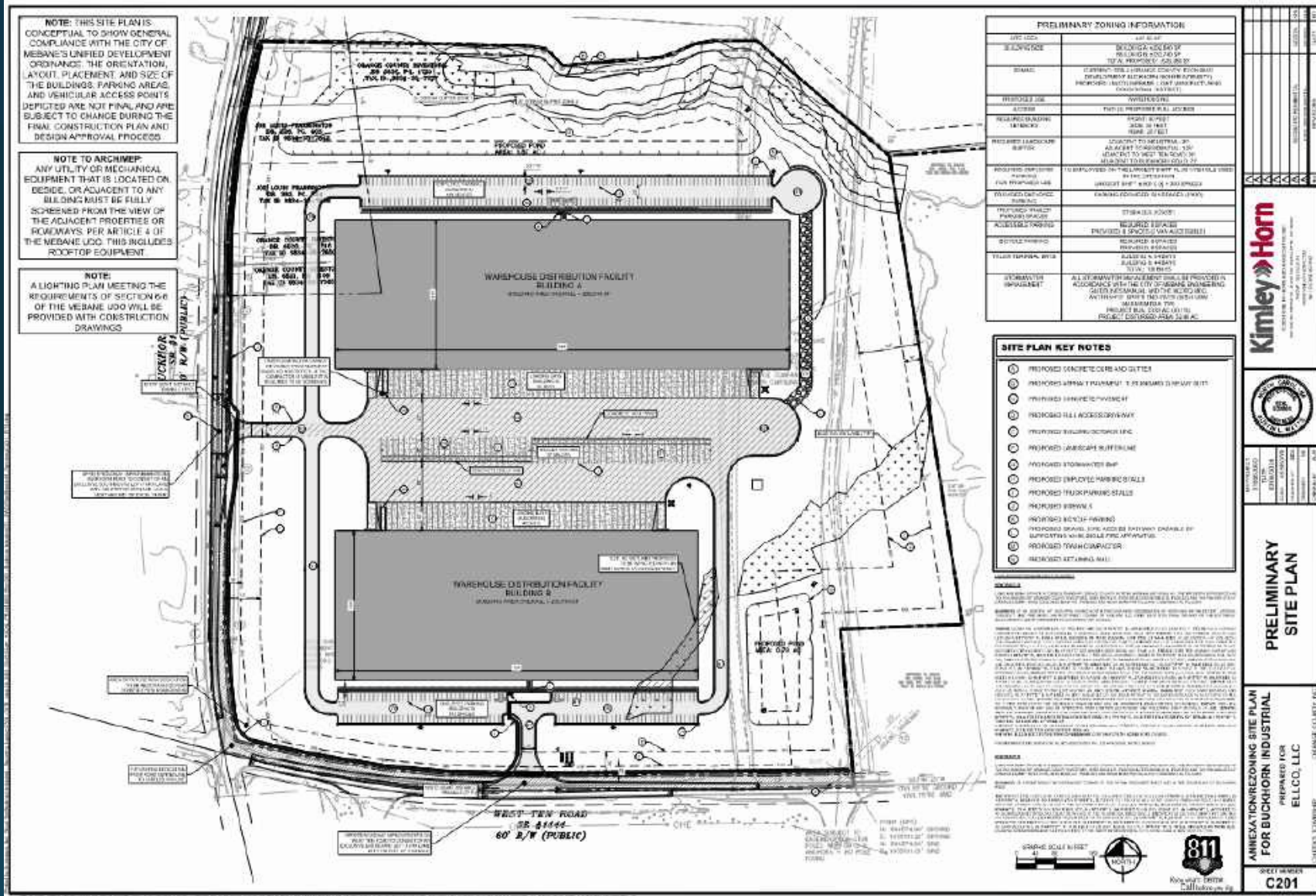
- Conceptual site plan showing the maximum intensity
 - +/- 526,380 square feet of light industrial space with parking and stormwater controls
 - Request for flexibility with the orientation, layout placement, and size of the buildings, parking areas, and vehicular access points
- Additional right-of-way dedication at Buckhorn and West Ten to be negotiated during construction review.
- Required 5' sidewalk along Buckhorn Road and West Ten Road



PRELIMINARY SITE PLAN

PRELIMINARY ZONING SITE PLAN FOR BUCKHORN INDUSTRIAL
 PREPARED FOR: ELLCO, LLC
 SHEET NUMBER: C201





Buckhorn Industrial Conditional Rezoning

- Buckhorn Road Improvements:
 - Exclusive southbound left-turn lane with 150 feet of storage and appropriate transitions
 - Exclusive northbound right-turn lane with 100 feet of storage and appropriate transitions
- West Ten Road Improvements:
 - Exclusive left-turn lane with 100 feet of storage and appropriate transitions





Applicant Presentation



Buckhorn Industrial Annexation & Conditional Zoning Request

Mebane City Council

July 1, 2024

Michael S. Fox
Tuggle Duggins P.A.

400 Bellemeade Street, Suite 800
Greensboro, NC 27401



Request

Annexation and Conditional Zoning of +/- 47.55 acres at the intersection of Buckhorn Road and West Ten Road.

Current Zoning : Orange County, Economic Development Buckhorn Higher Intensity (EDB-2).

Proposed Zoning: Mebane, Light Manufacturing - Conditional District (LM-CD).

Future Land Use Designation: G-2 Industrial located within the Buckhorn Economic Development District.



Community Meeting

May 13, 2024 letters were mailed to neighbors in the surrounding area inviting them to a Virtual Community Meeting.

Community Meeting held on May 23, 2024 at 5:30pm via Zoom.

Applicant remains committed to discussing the project with any community members who may have questions regarding the request.

Preliminary Site Plan



BUCKHORN INDUSTRIAL | MEBANE, NC

PLAN RENDER
MAY 2024

Kimley»Horn

THANK YOU
QUESTIONS?



APPLICATION FOR A ZONING AMENDMENT

Application is hereby made for an amendment to the Mebane Zoning Ordinance as follows:

Name of Applicant: Orange County Investors Partnership

Address of Applicant: 120 W Whitner Street, Anderson, SC 29624

Address and brief description of property to be rezoned: 706 Buckhorn Rd (PIN 9834-35-7650),

710 Buckhorn Rd (PIN 9834-35-7585), and the recently combined portions of 510 Buckhorn Rd and 610 Buckhorn Rd (PIN 9834-45-4342)

Applicant's interest in property: (Owned, leased or otherwise) Owned

*Do you have any conflicts of interest with: Elected/Appointed Officials, Staff, etc.?

Yes ___ Explain: _____ No

Type of re-zoning requested: Light Manufacturing - Conditional District (LM(CD))

Sketch attached: Yes No _____

Reason for the requested re-zoning: To allow for the development of uses permitted in the Light Manufacturing zoning district.

Signed: _____

OCIP Member - J. Wasty Elliott

Date: 5/22/24

Action by Planning Board: _____

Public Hearing Date: _____ Action: _____

Zoning Map Corrected: _____

The following items should be included with the application for rezoning when it is returned:

1. Tax Map showing the area that is to be considered for rezoning.
2. Names and addresses of all adjoining property owners within a 300' radius (Include those that are across the street).
3. \$300.00 Fee to cover administrative costs.
4. The information is due 15 working days prior to the Planning Board meeting. The Planning Board meets the 2nd Monday of each month at 6:30 p.m. Then the request goes to the City Council for a Public Hearing the following month. The City Council meets the 1st Monday of each month at 6:00 p.m.



APPLICATION FOR A ZONING AMENDMENT

Application is hereby made for an amendment to the Mebane Zoning Ordinance as follows:

Name of Applicant: Orange County Investors Partnership

Address of Applicant: 120 W Whitner Street, Anderson, SC 29624

Address and brief description of property to be rezoned: Buckhorn Rd

(PIN 9834357666 and 9834357842)

Applicant's interest in property: (Owned, leased or otherwise) Under contract to purchase.

*Do you have any conflicts of interest with: Elected/Appointed Officials, Staff, etc.?

Yes ___ Explain: _____ No

Type of re-zoning requested: Light Manufacturing - Conditional District (LM(CD))

Sketch attached: Yes No

Reason for the requested re-zoning: To allow for the development of uses permitted

in the Light Manufacturing zoning district.

Signed: [Signature]

*OCIP Member
J Wesley Ellis*

Date: 5/22/24

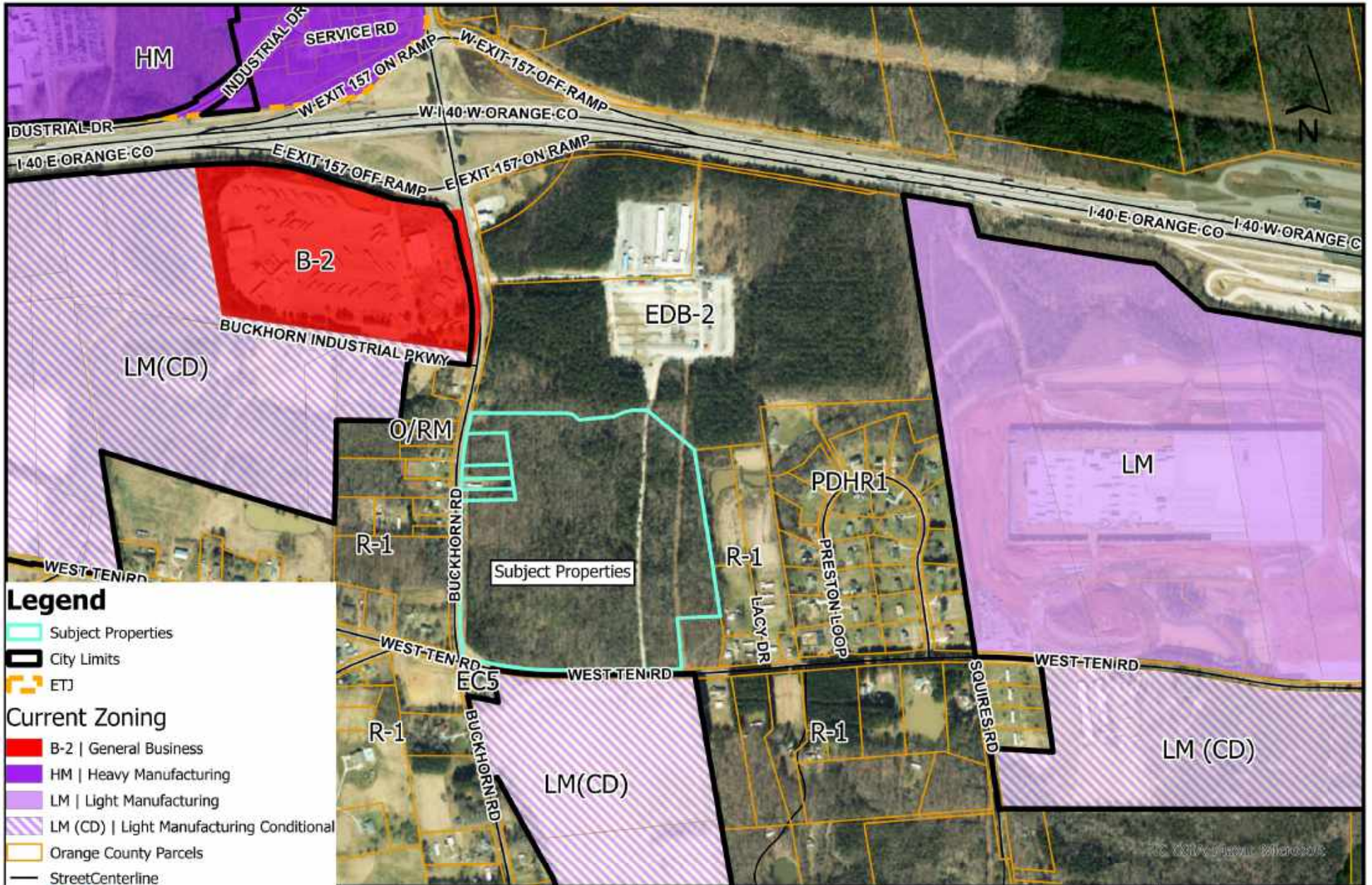
Action by Planning Board: _____

Public Hearing Date: _____ Action: _____

Zoning Map Corrected: _____

The following items should be included with the application for rezoning when it is returned:

1. Tax Map showing the area that is to be considered for rezoning.
2. Names and addresses of all adjoining property owners within a 300' radius (Include those that are across the street).
3. \$300.00 Fee to cover administrative costs.
4. The information is due 15 working days prior to the Planning Board meeting. The Planning Board meets the 2nd Monday of each month at 6:30 p.m. Then the request goes to the City Council for a Public Hearing the following month. The City Council meets the 1st Monday of each month at 6:00 p.m.



Legend

- ▭ Subject Properties
- City Limits
- ETJ

Current Zoning

- B-2 | General Business
- HM | Heavy Manufacturing
- LM | Light Manufacturing
- LM (CD) | Light Manufacturing Conditional
- Orange County Parcels
- StreetCenterline



CITY OF MEBANE
ZONING MAP

CONDITIONAL REZONING
BUCKHORN INDUSTRIAL

DATE: 5/21/24
DRAWN BY: BP

1 inch = 800 feet

PLANNING PROJECT REPORT

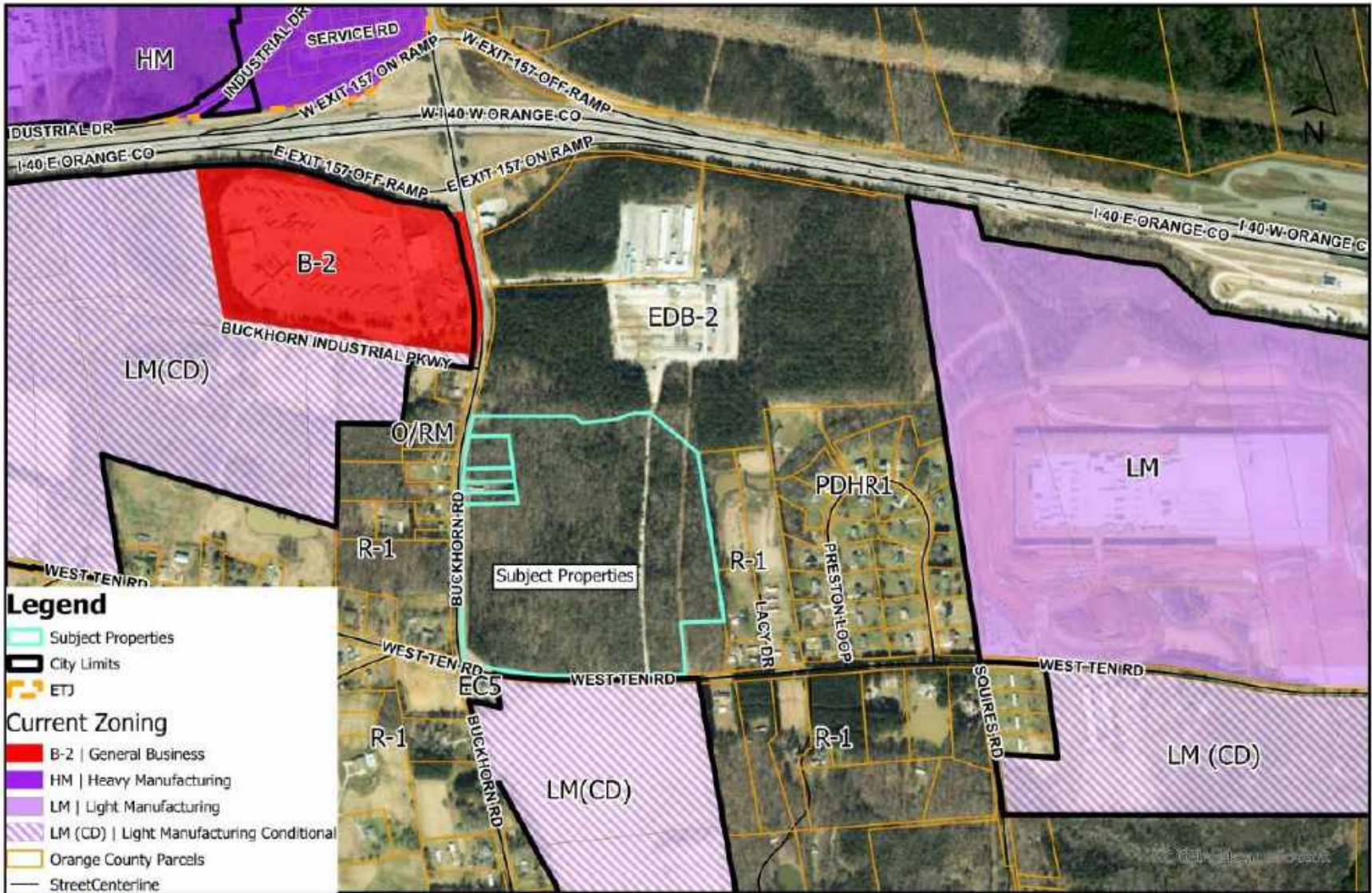
DATE	06/04/2024
PROJECT NUMBER	RZ 24-05
PROJECT NAME	Buckhorn Industrial
APPLICANT	Orange County Investors Partnership 120 W. Whitner Street Anderson, SC 29624

CONTENTS

PROJECT NAME & APPLICANT	PAGE 1
ZONING REPORT	PAGE 2
LAND USE REPORT	PAGE 4
UTILITIES REPORT	PAGE 6
STAFF RECOMMENDATION	PAGE 7

ZONING REPORT

EXISTING ZONE	EDB-2 (Orange County, Economic Development Buckhorn Higher Intensity)	
REQUESTED ACTION	LM(CD) (Light Manufacturing Conditional District)	
CONDITIONAL ZONE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CURRENT LAND USE	Vacant and wooded	
PARCEL SIZE	+/- 49.25 acres	
PROPERTY OWNERS	Orange County Investor Partnership 120 W. Whitner St. Anderson, SC 29621	Joe L Fearrington 1021 3 rd Street Ext Mebane, NC 27302
LEGAL DESCRIPTION	Request to establish LM(CD), Light Manufacturing Conditional, zoning on five properties (GPINs 9834454342, 9834357585, 9834357650, 9834357666, and 9834357842), totaling +/- 49.25 acres, and located outside of the Mebane Extraterritorial Jurisdiction (ETJ) in Orange County by Orange County Investors Partnership.	
AREA ZONING & DISTRICTS	The parcels to the immediate west and east of the subject property are zoned R-1, Rural Residential, by Orange County. The parcel to the immediate south is zoned LM (CD), Light Manufacturing Conditional District, by the City of Mebane. South of the site, there is also a smaller parcel zoned EC-5, Existing Commercial, by Orange County. The parcels to the immediate north are currently zoned EDB-2 by Orange County and is subject to a rezoning request to develop a trucking and freight terminal.	
SITE HISTORY	The main property has been wooded and vacant since at least 2010. Single-family homes are located at 706 Buckhorn Road and 710 Buckhorn Road.	
STAFF ANALYSIS		
CITY LIMITS?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
PROPOSED USE BY-RIGHT?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SPECIAL USE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
EXISTING UTILITIES?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
POTENTIAL IMPACT OF PROPOSED ZONE	The current zoning of the properties supports development of manufacturing, assembly, processing, and distribution uses.	



**CITY OF MEBANE
ZONING MAP**

**CONDITIONAL REZONING
BUCKHORN INDUSTRIAL**

1 inch = 800 feet

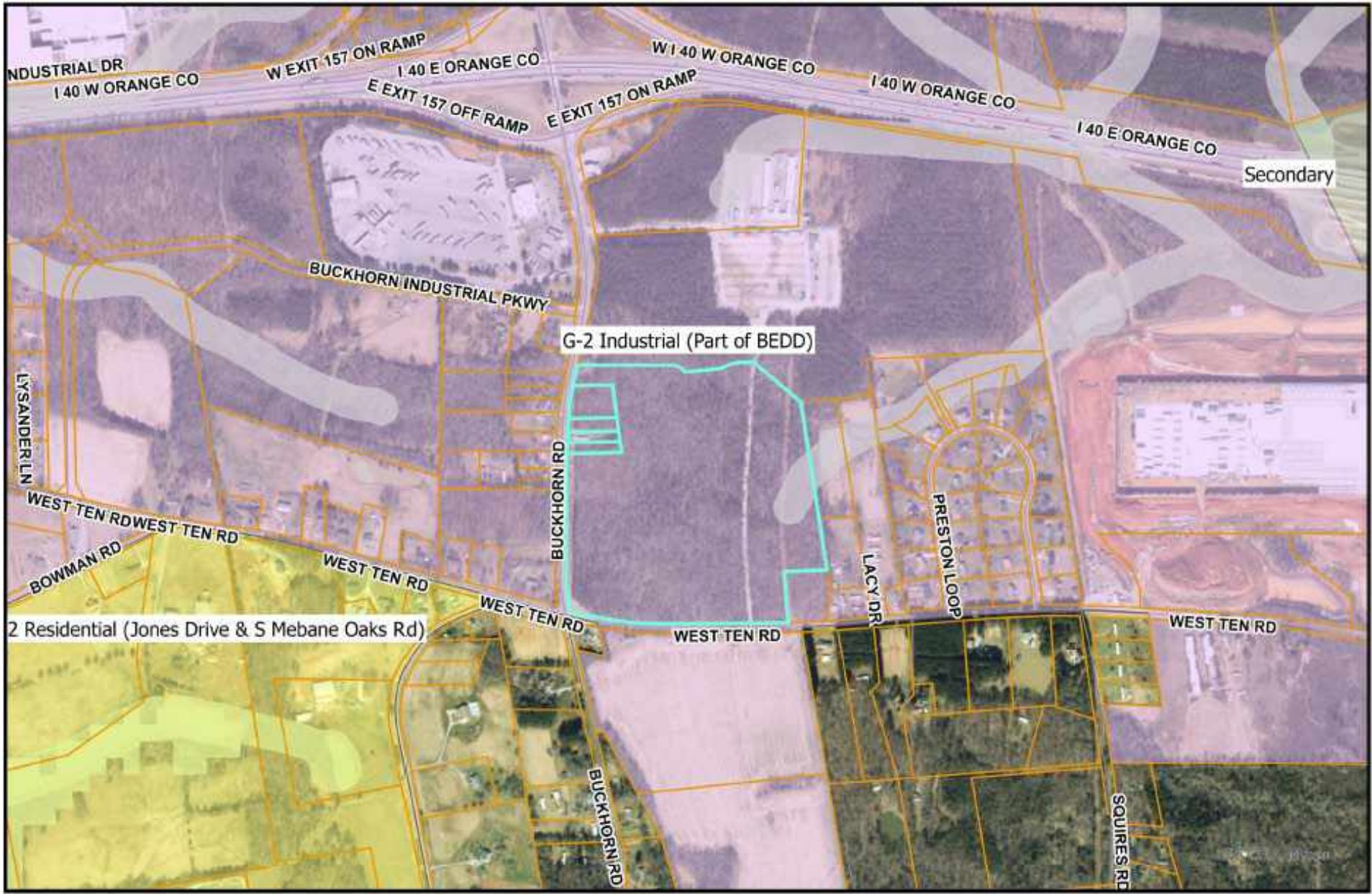
DATE: 5/21/24

DRAWN BY: BP

LAND USE REPORT

EXISTING LAND USE	Vacant; Single-Family Residential
PROPOSED LAND USE & REQUESTED ACTION	The applicant is petitioning the City of Mebane for annexation and rezoning of five properties totaling +/- 49.25 acres from Orange County's EDB-2 (Economic Development Buckhorn Higher Intensity) zoning to Light Manufacturing, Conditional District.
PROPOSED ZONING	LM(CD) (Light Manufacturing Conditional District)
PARCEL SIZE	+/- 49.25 acres
AREA LAND USE	The parcels to the immediate west and east of the subject property contain scattered residential home development. Parcels to the south include a small car dealership and two warehouses, with one occupied by Thermo Fisher Scientific. Medline and Buckhorn Business Centre are additional industrial developments in the immediate area.
ONSITE AMENITIES & DEDICATIONS	The developer is responsible for installing 5' public sidewalks along Buckhorn Road and West Ten Road. Public right-of-way dedication is likely required with roadway improvements. Additionally, the applicant has committed to review right-of-way dedication at the intersection of Buckhorn Road and West Ten Road with construction plan review.
CONDITIONAL ZONE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
DESCRIPTION OF PROPOSED CONDITIONS	The provided site plan is considered conceptual to show the maximum intensity. The site plan shows a total of +/- 526,380 square feet of light industrial space along with parking and stormwater controls to support this footprint. As noted on the site plan, the concept is to show general compliance with the Mebane Unified Development Ordinance (UDO). The applicant is requesting flexibility with the orientation, layout placement, and size of the buildings, parking areas, and vehicular access points.

CONSISTENCY WITH <i>MEBANE BY DESIGN</i> STRATEGY	
LAND USE GROWTH STRATEGY DESIGNATION(S)	G-2 Industrial (BEDD and North of I-40/85) Conservation Area
OTHER LAND USE CONSIDERATIONS	Upper Eno River Protected Watershed II – Applicant requesting application of 10/70 Built Upon Area allowance.
<i>MEBANE BY DESIGN</i> GOALS & OBJECTIVES SUPPORTED	<u>Growth Management Goal 1.7</u> Continue to support industrial development of existing industrial parks near I-40/85.
<i>MEBANE BY DESIGN</i> GOALS & OBJECTIVES <u>NOT</u> SUPPORTED	



UTILITIES REPORT

AVAILABLE UTILITIES	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
PROPOSED UTILITY NEEDS	Per the memorandum from Franz Holt of AWCK, an on-site fire pump and ground storage tank may be required. These items will be finalized with construction drawing preparation. The city can meet the proposed domestic water of approximately 10,800 gallons per day (gpd) and fire flow needs with finalized on site improvements. Additionally, the site plans call for lateral service lines directed to a private sewer lift station pumping to an existing Mebane 8-inch public gravity sewer main in Buckhorn Road. The city can meet the proposed sewer needs of approximately 10,800 gpd (per 2t rules) at its downstream facilities.
UTILITIES PROVIDED BY APPLICANT	The applicant has pledged to provide all on-site utilities, as described in AWCK's Technical Memo.
MUNICIPAL CAPACITY TO ABSORB PROJECT	The City has adequate water & sewer supply to meet the domestic and fire flow demands of the project.
CONSISTENCY WITH MEBANE LONG RANGE UTILITY PLAN?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
ADEQUATE STORMWATER CONTROL?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
INNOVATIVE STORMWATER MANAGEMENT?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A

TRANSPORTATION NETWORK STATUS

CURRENT CONDITIONS	<p>The site shows one driveway connection on Buckhorn Road and one on West Ten Road. Both Buckhorn and West Ten Road are NCDOT-maintained, undivided two-lane roads. Buckhorn Road had an average daily traffic volume of 2,100 in 2023. The average daily traffic volume on West Ten Road was 3,000 in 2021.</p> <p>Buckhorn Road received a low Section Safety Score of 78 between 2018-2022 with 17 total crashes reported during that time frame. Fourteen crashes resulted in property damage only and three resulted in minor or moderate injuries.</p> <p>West Ten Road received a low Section Safety Score of 78 between 2018-2022 with 4 total crashes reported during that time. Three crashes resulted in property damage only and one resulted in minor or moderate injuries.</p>
TRAFFIC IMPACT ANALYSIS REQUIRED?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

DESCRIPTION OF RECOMMENDED IMPROVEMENTS	<p>Roadway improvements required on Buckhorn Road include:</p> <ul style="list-style-type: none"> • Construct an exclusive southbound left-turn lane with 150 feet of storage and appropriate transitions per NCDOT requirements. • Construct an exclusive northbound right-turn lane with 100 feet of storage and appropriate transitions per NCDOT requirements. <p>Roadway improvements required on West Ten Road include:</p> <ul style="list-style-type: none"> • Construct a left-turn lane at the site driveway with 100 feet of storage and appropriate transitions per NCDOT requirements.
CONSISTENCY WITH THE MEBANE BICYCLE AND PEDESTRIAN TRANSPORTATION PLAN?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
MULTIMODAL IMPROVEMENTS PROVIDED BY APPLICANT?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
DESCRIPTION OF MULTIMODAL IMPROVEMENTS	The applicant is required to construct a 5' sidewalk for the length of the property on Buckhorn Road and West Ten Road, as shown on the site plan.

STAFF RECOMMENDATION

STAFF RECOMMENDATION	<input checked="" type="checkbox"/> APPROVE <input type="checkbox"/> DISAPPROVE
STAFF SPECIAL USE FINDING	<input type="checkbox"/> CONSISTENT <input type="checkbox"/> NOT CONSISTENT.....WITH <i>MEBANE BY DESIGN</i>
RATIONALE	The proposed development “Buckhorn Industrial” is consistent with the guidance provided by Mebane By Design, the Mebane Comprehensive Land Development Plan. Specifically, it will support industrial development recommended for the G-2, Industrial (BEDD and North of I-40/85) Growth Area.



Technical Memo

Date: 6-4-24

From: Franz Holt, City Engineer

To: Ashley Ownbey, Development Director

CC: Austin Watts, PE with Kimley-Horn and Associates, Inc.

Subject: Buckhorn Industrial at Buckhorn Road and West Ten Road

The Engineering Department has completed its review of preliminary site plans by Kimley-Horn and Associates, Inc. located in Charlotte NC for a proposed rezoning of property for the proposed specific use of warehouse distribution. ELLCO, LLC intends to construct a 292,640 SF warehouse distribution facility and a 233,740 SF warehouse distribution facility on a 47.55-acre site. Our technical review comments are as follows:

- A. Preliminary Water System Layout– The site plans call for tapping Mebane’s 12-inch public water main on West Ten Road. The tap will serve an 8-inch fire supply line and a header pipe with two 2-inch domestic taps all with required backflow prevention. A preliminary 8-inch fire line is shown with fire hydrants. An on-site fire pump and ground storage tank may be required. These items will be finalized with construction drawing preparation. The city can meet the proposed domestic water of approximately 10,800 gallons per day (gpd) and fire flow needs with finalized on site improvements. I have reviewed the preliminary water system layout, finding it acceptable.
- B. Preliminary Sanitary Sewer System Layout – The site plans call for lateral service lines directed to a private sewer lift station pumping to an existing Mebane 8-inch public gravity sewer main in Buckhorn Road. The city can meet the proposed sewer needs of approximately 10,800 gpd (per 2t rules) at its downstream facilities. I have reviewed the preliminary sewer system layout, finding it acceptable.
- C. Preliminary Storm Sewer Layout – The storm sewer layout shows drainage structures and piping capturing all built upon area and discharging to storm water control measures (fenced wet ponds). I have reviewed the preliminary storm sewer system layout, finding it acceptable.
- D. The developer is providing sidewalks along the Buckhorn Road property frontage and West Ten Road property frontage.
- E. Preliminary Stormwater Management Plan– The site is within the Falls Lake and the Upper Eno River (WS-II NSW) non-critical water supply watershed with a maximum built upon area (BUA)

of 70% allowed, 50.1% BUA shown. There are nitrogen and phosphorus treatment requirements per NCDEQ. Stormwater treatment shall also follow City of Mebane requirements for water quality (runoff from 1-inch rain and quantity (10-year design storm post peak runoff development vs. pre-development). Two separate storm water control measures are shown (fenced wet ponds). Engineering has reviewed the preliminary stormwater management plan, finding it acceptable.

- F. TIA Analysis and Roadway Connections– One roadway connection is proposed to Buckhorn Road (SR 1114) and one roadway connection to West Ten Road (SR 1146) with one site ingress lane and one site egress lane. In addition, Kimley-Horn Associates, Inc. has completed a TIA which has been reviewed by Mebane’s consultant VHB and NCDOT. Improvements to Buckhorn Road include an exclusive southbound left-turn lane with 150 feet of storage, and exclusive northbound right-turn lane with 100 feet of storage all with appropriate transitions. Improvements to West Ten Road include an exclusive eastbound left-turn lane with 100 feet of storage and an exclusive westbound left turn lane with 100 feet of storage all with appropriate transitions.
- G. Site Construction Drawings – Site construction drawings are required for TRC review and approval along with a flood study.
- H. Annexation and road right-of-way dedication is required with the development.

To access the TIA,
[click here.](#)



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

November 13, 2023

ORANGE COUNTY

Earl R. Lewellyn, PE
Kimley-Horn and Associates, Inc.
300 Morris Street, Suite 200
Durham, NC 27701

Subject: Proposed Ellison Property Located on SR 1146 (West Ten Road) and SR 1114
(Buckhorn Road)
Review of Traffic Impact Analysis (TIA)

Dear Mr. Lewellyn,

NCDOT staff has completed a collaborative review with the City of Mebane of the above subject. Based on the information provided we offer the following comments with regard to the state road network.

General:

The proposed site is located generally east of Buckhorn Road between I-40 and West Ten Road in Orange County, North Carolina. The proposed site consists of approximately 605,000 square-feet (SF) of warehousing space and is expected to generate approximately 994 new daily trips upon full build out in 2026. Site access is proposed via one full-movement driveway along Buckhorn Road and one full-movement driveway along West Ten Road aligned with the existing industrial access.

Findings and Requirements:

Based on the information provided and as a condition of the pending driveway permit, the developer will be required to construct the following road improvements to mitigate the anticipated impacts of site traffic.

Buckhorn Road Site Driveway:

- Construct a full movement driveway with one ingress lane and one egress lane under stop-control.
- Provide a minimum of 100 feet of internal protection stem (IPS) length.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION 7, DISTRICT 1
PO BOX 766
GRAHAM, NC 27253-0766

Telephone: (336) 570-6833
Fax: (336) 570-6873
Customer Service: 1-877-368-4968

Location:
115 EAST CRESCENT SQUARE DRIVE
GRAHAM, NC 27253

Website: www.ncdot.gov

- Construct an exclusive southbound left-turn lane with 150 feet of storage and appropriate transitions per NCDOT requirements.
- Construct an exclusive northbound right-turn lane with 100 feet of storage and appropriate transitions per NCDOT requirements.

West Ten Road Site Driveway:

- Construct a full movement driveway with one ingress lane and one egress lane under stop-control.
- Provide a minimum of 100 feet of internal protection stem (IPS) length.
- Construct an exclusive eastbound left-turn lane with 100 feet of storage and appropriate transitions per NCDOT requirements.
- Construct an exclusive westbound left-turn lane with 100 feet of storage and appropriate transitions per NCDOT requirements to provide appropriate intersection geometry.

Multi-modal and Streetscape Enhancements:

Any locally stipulated multi-modal enhancements including but not limited to sidewalk, bike lanes, bus pull offs, lighting, landscaping etc. on State maintained routes are subject to NCDOT requirements and approval through the encroachment process.

General Requirements:

It is necessary to obtain an approved driveway permit and/or encroachment agreement(s) prior to performing work on the NCDOT right of way. As a condition of the permit, the permittee shall be responsible for design and construction of the above stipulated improvements in accordance with NCDOT requirements. An approved permit will be issued upon receipt of approved site plan, roadway and signal construction plans as needed, inspection fee, and any necessary performance and indemnity bonds.

The applicant shall dedicate any additional right of way necessary to accommodate the required road improvements or future improvements as stipulated.

The applicant shall verify that the proposed street and driveway connections provide for adequate vertical and horizontal sight distances in accordance with NCDOT requirements.

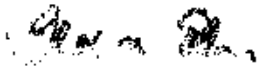
Intersection radii and geometry shall be designed to accommodate turning movements of the largest anticipated vehicle.

All pavement markings shall be long life thermoplastic. Pavement markers shall be installed if they previously existed on the roadway.

The permittee shall be responsible for the installation and relocation of any additional highway signs that may be necessary due to these improvements and shall comply with the requirements of the MUTCD.

Feel free to contact me if you have any questions.

Sincerely,



C. N. Edwards Jr., PE
District Engineer

Cc: W.R. Archer, III, PE, Division Engineer
D.M. McPherson, Division Traffic Engineer
Nicholas C. Lineberger, PE, Regional Engineer
City of Mebane



Memorandum

To: Ashley Ownbey
Development Director
City of Mebane

Date: November 17, 2023

C. N. Edwards Jr., PE
District Engineer
NCDOT Highway Division 7 District 1

Project #: 39160.00, Task 21

From: Baohong Wan, PhD, PE

Re: Ellison Property Traffic Impact Analysis Technical
Review
Mebane, NC

A Traffic Impact Analysis (TIA) was prepared by Kimley-Horn and Associates for the proposed Ellison Property development located on the east side of Buckhorn between I-40/ I-85 and West Ten Road in Mebane, North Carolina. Per request by the City of Mebane, VHB conducted an independent review of the Ellison Property TIA. This memo provides a list of critical findings, followed by an in-depth summary of study process and analysis results of the TIA.

List of Mitigation Recommendations

The following items in red should be considered in addition to mitigation measures that have been identified within the Ellison Property TIA:

- › Buckhorn Road and West Ten Road
 - Preserve right-of-way (ROW) within the vicinity of the intersection for future widening, turn lane and signalization improvements.
 - Monitor for signalization.
- › Buckhorn Road and Site Access
 - Construct a full movement driveway with one ingress lane and one egress lane under stop-control.
 - Provide a minimum of 100 feet of internal protection stem (IPS) length.
 - Construct an exclusive southbound left-turn lane with 150 feet of storage and appropriate taper.
 - Construct an exclusive northbound right-turn lane with 100 feet of storage and appropriate taper.
- › West Ten Road and Site Access
 - Construct a full movement driveway with one ingress lane and one egress lane under stop-control.
 - Provide a minimum of 100 feet of internal protection stem (IPS) length.
 - Construct an exclusive eastbound left-turn lane with 100 feet of storage and appropriate taper.
 - Construct an exclusive westbound left-turn lane with 100 feet of storage and appropriate taper.
- › Project Coordination
 - Coordinate with R+L Carriers - Mebane to maintain lane continuity and design consistency along Buckhorn Road.
- › Multimodal Considerations: Compliance of multimodal transportation requirements should be examined to ensure adequacy of pedestrian, bike, and transit facilities on Buckhorn Road and West Ten Road along the property frontage.

VHB Engineering NC, P.C. (C-3075)

Engineers | Scientists | Planners | Designers

Venture I, 940 Main Campus Drive, Suite 500, Raleigh, North Carolina 27606

P 919.829.0328 F 919.833.0034 www.vhb.com

Summary of TIA Assumptions and Results

Development Plan

The proposed Ellison Property development will consist of 605,000 square feet (sf) of warehousing. ITE Land Use Code (LUC) 150 (Warehousing) was utilized within the ITE Trip Generation Manual to generate site traffic for the proposed development. According to the TIA, the proposed development is expected to generate 994 daily trips with 96 trips (74 entering, 22 exiting) occurring in the AM peak hour and 99 trips (28 entering, 71 exiting) occurring in the PM peak hour.

Site access will be provided via one full movement access along Buckhorn Road and one full movement access along West Ten Road.

Study Area and Analysis Scenarios

The TIA included capacity analyses during the weekday AM and PM peak hours under the following scenarios:

- › Existing (2023) Conditions
- › Background (2026) Conditions
- › Build-out (2026) Conditions

Through coordination with NCDOT and the City of Mebane, the following intersections were analyzed in the TIA:

- › Buckhorn Road at I-40 WB/ I-85 SB Ramps (unsignalized)
- › Buckhorn Road at I-40 EB/ I-85 NB Ramps (unsignalized)
- › Buckhorn Road at West Ten Road (unsignalized)
- › Buckhorn Road at Site Driveway (future unsignalized)
- › West Ten Road at Site Driveway (future unsignalized)

Existing and No-Build Analysis Assumptions

Existing (2023) analysis was conducted based on traffic counts collected in December 2022 and May 2023 during weekday AM (7 to 9 AM) and PM (4 to 6 PM) peak hours while area schools were in session.

The No-Build scenario included an annual growth rate of one-half percent (0.5%) between the existing year (2023) and the future analysis year (2026). In addition, site trips due to the following adjacent development were identified and included in the future year analyses:

- › Buckhorn Business Centre
- › Exeter South Outparcels
- › Medline North Outparcel
- › Project Skywalker
- › West Ten Industrial
- › R+L Carriers – Mebane (currently under review)

The NCDOT is committed to installing traffic signals at both ramp intersections at the I-40/ I-85 and Buckhorn Road interchange before the build-out of the development takes place. The traffic signals were analyzed under No-Build (2026) and Build-out (2026) conditions.

Trip Generation & Distribution

Trip generation potential for the site was calculated based on methodology presented within the *ITE Trip Generation Manual, 11th Edition*. ITE LUC 150 (Warehousing) was used based on NCDOT guidance. According to the TIA, the proposed development is expected to generate 994 daily trips with 96 trips (74 entering, 22 exiting) occurring in the AM peak hour and 99 trips (28 entering, 71 exiting) occurring in the PM peak hour.

Traffic assignment for the development was based on the following trip distribution assumptions:

- › 40% to/from the west via I-40/ I-85
- › 35% to/from the east via I-40/ I-85
- › 10% to/from the east via West Ten Road
- › 5% to/from the west via West Ten Road
- › 5% to/from the north via Buckhorn Road
- › 5% to/from the south via Buckhorn Road

Capacity Analysis Results

Capacity analyses in the TIA were conducted following the NCDOT Congestion Management Capacity Analysis Guidelines. The analysis results and mitigation determinations are summarized below for each individual intersection, while LOS and delay are reported and summarized for stop-controlled approaches at unsignalized intersections.

Buckhorn Road at I-40 WB/ I-85 SB Ramps (future signalized)

ID	Intersection and Approach	Existing (2023)		Background (2026)		Build-out (2026)	
		AM	PM	AM	PM	AM	PM
1	Buckhorn Road at I-40 WB/ I-85 SB Ramps	N/A	N/A	B (19.7)	B (13.7)	C (21.8)	B (13.9)
	Westbound	B-14.9	C-23.0	C-33.6	B-20.0	D-37.0	C-20.2
	Northbound	---	---	B-10.8	A-6.0	B-12.1	A-5.9
	Southbound	---	---	B-17.5	B-12.9	B-19.1	B-13.9

The TIA indicated that the future signalized intersection is expected to operate at LOS C during the AM peak hour and LOS B during the PM peak hour under the Build-out conditions. Since the intersection is expected to operate acceptably with the development in place, no improvements were recommended in the TIA.

Buckhorn Road at I-40 EB/ I-85 NB Ramps (future signalized)

ID	Intersection and Approach	Existing (2023)		Background (2026)		Build-out (2026)	
		AM	PM	AM	PM	AM	PM
2	Buckhorn Road at I-40 EB/ I-85 NB Ramps	N/A	N/A	B (10.2)	B (12.1)	B (10.1)	B (12.1)
	Eastbound	F-76.4	D-32.8	B-19.7	C-28.9	B-19.3	C-28.6
	Northbound	---	---	B-14.5	A-8.7	B-13.4	A-8.9
	Southbound	---	---	A-3.6	A-5.8	A-4.0	A-6.1

The TIA indicated that the future signalized intersection is expected to operate at LOS B during both peak hours under Build-out conditions. Since the intersection is expected to operate acceptably with the development in place, no improvements were recommended in the TIA.

Buckhorn Road at West Ten Road (unsignalized)

ID	Intersection and Approach	Existing (2023)		Background (2026)		Build-out (2026)	
		AM	PM	AM	PM	AM	PM
3	Buckhorn Road at West Ten Road	B (12.6)	A (8.8)	E (44.3)	B (11.4)	E (45.9)	B (11.6)
	Eastbound	B-11.9	A-8.8	C-24.0	B-10.4	C-24.8	B-10.5
	Westbound	A-9.7	A-8.7	C-15.3	B-12.0	C-15.5	B-12.2
	Northbound	A-9.7	A-8.6	B-13.1	A-10.0	B-13.3	B-10.1
	Southbound	B-14.7	A-9.1	F-74.8	B-11.8	F-78.0	B-12.0

The TIA indicated that the all-way stop-control intersection is expected to decline to operate at LOS E during the AM peak under the Background and Build-out conditions. The development is anticipated to contribute a minimal amount of traffic to this intersection with poor operations being attributed to background development and nearby Gravelly Middle School. Therefore, no improvements were recommended in the TIA for this intersection.

While the development is not expected to significantly impact the intersection, the site may control property along multiple legs of the intersection that will be needed to provide future improvements. The development should reserve necessary ROW to assist with constructing future turn lane and/or signalization improvements. With multiple developments planned underway along Buckhorn Road and West Ten Road, this intersection should be monitored for signalization under the future year conditions.

Buckhorn Road at Site Access (unsignalized)

ID	Intersection and Approach	Existing (2023)		Background (2026)		Build-out (2026)	
		AM	PM	AM	PM	AM	PM
4	Buckhorn Road at Site Access	N/A	N/A	N/A	N/A	N/A	N/A
	Westbound	---	---	---	---	B-12.5	B-11.4

The TIA indicated that the proposed Site Access driveway is projected to operate at LOS B during both peak hours under the Build-out conditions. The following improvements were recommended in the TIA for the Site Access connection.

- › Construct a full movement driveway with one ingress lane and one egress lane.
- › Construct an exclusive southbound left-turn lane with 150 feet of storage and appropriate taper.

Although the TIA indicated that traffic volumes would not meet warrants for installing an exclusive right-turn lane along northbound Buckhorn Road, a right-turn lane should be provided due to planning considerations and to provide adequate safety and capacity to accommodate truck traffic.

West Ten Road at Site Access (unsignalized)

ID	Intersection and Approach	Existing (2023)		Background (2026)		Build-out (2026)	
		AM	PM	AM	PM	AM	PM
5	West Ten Road at Site Access	N/A	N/A	N/A	N/A	N/A	N/A
	Southbound	---	---	---	---	B-13.5	B-11.7

The TIA indicated that the proposed Site Access driveway is projected to operate at LOS B during both peak hours under the Build-out conditions. The following improvements were recommended in the TIA for the Site Access connection.

- › Construct a full movement driveway with one ingress lane and one egress lane.

Although the TIA indicated that traffic volumes would not meet warrants for installing an exclusive left-turn lane along eastbound West Ten Road, this intersection would function with a fourth leg and more conflicting movements than currently shown in the TIA. As a result, an exclusive left-turn lane along eastbound West Ten Road should be provided due to planning considerations and to provide a consistent lane alignment along West Ten Road. In addition, a dedicated westbound left-turn lane should be provided for safety and design considerations.



AGENDA ITEM #6G

RZ 23-01 Amended

Conditional Rezoning Amendment –
Tractor Supply

Presenter

Ashley Ownbey, Development Director

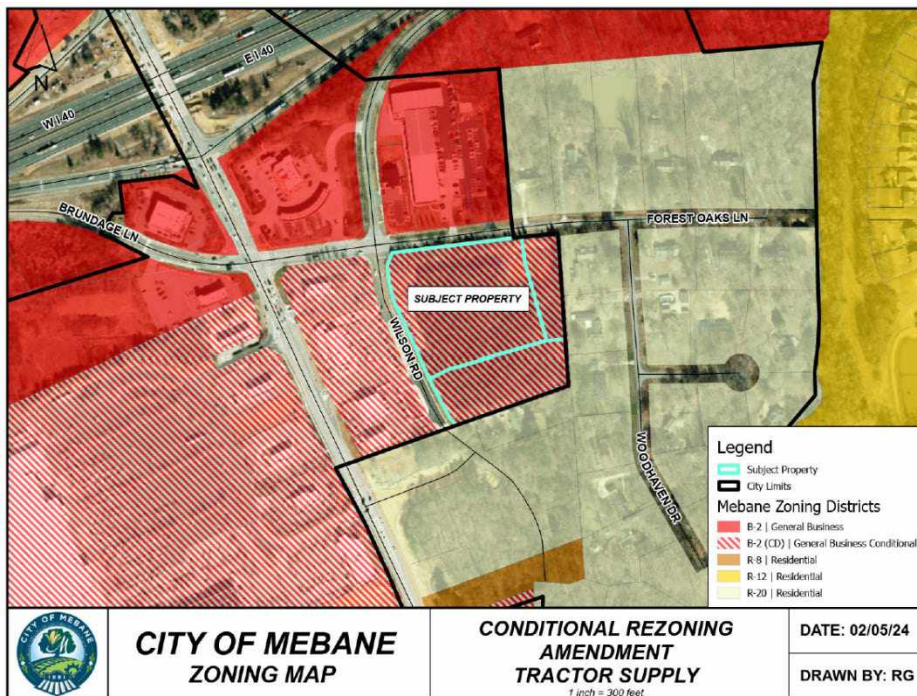
Applicant

Hendon Tiller Mebane 3.0, LLC
Attn. Mark Tiller
3445 Peachtree Rd NE #465
Atlanta, GA 30326

Public Hearing

Yes No

Zoning Map



Property

3995 Wilson Road
Alamance County GPINs:
9824046036,
9824038914,
9824049256

Proposed Zoning

B-2 (CD) – revised conditions

Current Zoning

B-2 (CD)

Size

+/-6.19 acres

Surrounding Zoning

B-2 (CD), B-2, R-20,

Surrounding Land Uses

Commercial, Residential

Utilities

Available

Floodplain

No

Watershed

No

City Limits

Yes

Application Brief

See Planning Project Report for more details.

Recommendations	
Technical Review Committee:	The Technical Review Committee (TRC) has reviewed the revised site plan three times and the applicant has revised the plan to reflect the comments.
Planning Staff:	The proposed development “Tractor Supply” is consistent with the guidance provided within Mebane By Design, the Mebane Comprehensive Land Development Plan.
Planning Board:	At their March 11 meeting, the Planning Board voted 7-0 to recommend approval of the conditional rezoning request.
Zoning & Land Use Report	
Jurisdiction:	Mebane City Limits
Proposed Use By-Right (Yes/No):	No
Type of Rezoning Request:	Conditional
Special Use Request (Yes/No):	No
Consistency with Mebane By Design (Yes/No):	Yes
Utilities Report	
Available Utilities (Yes/No):	Yes
Adequate Stormwater Control (Yes/No):	Yes
Innovative Stormwater Control (Yes/No):	No
Consistency with Long-Range Utility Plan (Yes/No):	Yes
Transportation Report	
Traffic Impact Analysis Required (Yes/No):	Yes
Multi-Modal Improvements (Yes/No):	Yes
Consistency with Bike/Ped Transportation Plan (Yes/No):	Yes

Summary

Hendon Tiller Mebane 3.0, LLC is requesting approval to revise the conditions for the +/- 6.19-acre property located on Wilson Road and Forest Oaks Lane (GPINs 9824046036, 9824038914, 9824049256), zoned B-2 (CD) to allow for a farm supplies and equipment retail use. The requested conditions reflect that Wilson Road will no longer be extended and a Traffic Impact Analysis was submitted to address the potential impacts of the proposed development without that connection. The property is located in Alamance County in the Mebane City Limits.

The +/- 6.19-acre parcel has been subdivided into three lots. Lot 4 will be developed as the farm supplies and equipment retail use, Lot 5 will be reserved for future commercial development, and Lot 6 will be primarily utilized as a stormwater management area. The revised site-specific plan proposes that Lot 5 will be subdivided into two lots. The proposed new Lot 7 is intended to be sold to Chick-Fil-A for use as a staff and overflow parking lot. The site plan shows three driveways, with two on Forest Oaks Lane and one on Wilson Road. The driveway on Wilson Road will provide shared access for the proposed Lots 4, 5, and 7.

Additional changes to the site plan originally approved by the Mebane City Council include:

- A reduction in the amount of curb and gutter on Forest Oaks Lane. The new site plan shows curb and gutter on Forest Oaks Lane opposite the site ending at the second commercial driveway on Forest Oaks Lane. The original site plan had curb and gutter extending past the first residential driveway on Forest Oaks Lane.
- The addition of crosswalks at the intersection of Wilson Road and Forest Oaks Lane and a mid-block crossing of Wilson Road.
- A minor modification to the parking lot layout around the entrance to the fenced outdoor display area.
- The 3,827 square-foot Garden Center has been changed to a 2,640 square-foot Live Goods Center. This has increased the outdoor display area from 24,040 square feet (14.58% of the site area) to 26,745 square feet (16.22% of the site area). Of the total outdoor display area, 2,640 square feet will be covered, 19,654 square feet will be fenced, and the remaining 4,451 square feet will be uncovered and unfenced.

As the developer did not secure the right-of-way needed to extend Wilson Road, a TIA was submitted for this project. The developer is required to make the following improvements:

- Provide a westbound left turn lane on Forest Oaks Lane with adequate storage and taper, as required by the NCDOT and the City of Mebane.
- Construction of the three site driveways with one ingress lane and one egress lane striped as a shared left-right turn lane operating under stop-control.
- Compliance of multimodal transportation requirements will be examined by staff to ensure adequacy of pedestrian, bike, and transit facilities along the property frontage. Additional crosswalks shall be considered at the intersection of Wilson Road and Forest Oak Lane.

The following conditions are proposed with the conditional rezoning request:

Applicant-Proposed Conditions of Zoning District	Mebane UDO Requirements
<p>The stormwater pond shall be constructed for a 100-year storm event. As noted on Sheet C4.0, the current design is considered by staff to be conceptual and additional design details are required with construction plans.</p>	<p>Section 5-1 of the Mebane UDO requires development to comply with applicable stormwater management requirements. Stormwater review and permitting typically occurs during construction plan review.</p>
<p>The applicant has requested a total outdoor display area of 26,745 square feet or 16.22% of the site area. The breakdown of the proposed outdoor display area is as follows:</p> <ul style="list-style-type: none"> • 2,640 square feet of covered area • 19,654 square feet of fenced area • 4,451 square feet of other areas 	<p>The development standards for this particular use, which are found in Section 4-7.8.H of the Mebane UDO, include a limit on the outdoor area devoted to the display and sales of retail goods to a maximum of 15 percent of the net developable lot area.</p>

Financial Impact

The developer will be required to make all of the improvements at his own expense.

Suggested Motion

1. Motion to approve the revised conditions of the B-2(CD) rezoning as presented.
2. Motion to find that **the application is consistent** with the objectives and goals in the City’s 2017 Comprehensive Land Development Plan *Mebane By Design*. Specifically, the request:
 - Is for a property within the City’s G-4 Secondary Growth Area and is generally commercial in nature (Mebane CLP, p. 66).

OR

3. Motion to **deny** the revised conditions of the B-2(CD) rezoning as presented due to a lack of
 - a. Harmony with the surrounding zoning or land use

OR

 - b. Consistency with the objectives and goals in the City’s 2017 Comprehensive Land Development Plan *Mebane By Design*.

Attachments

1. Preliminary Presentation Slides
2. Zoning Amendment Application

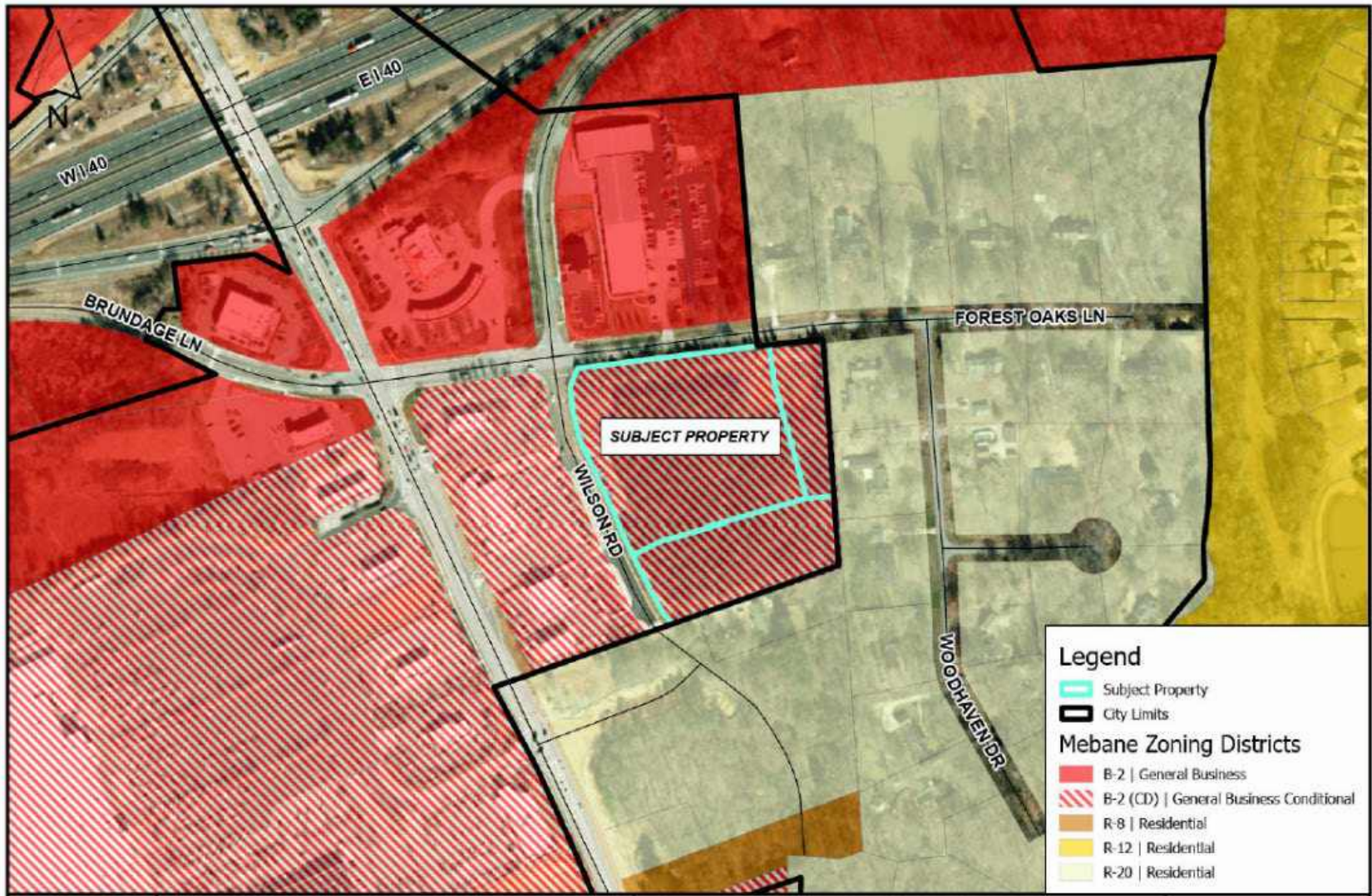
3. Zoning Map
4. Site Plan – [click here to access.](#)
5. Planning Project Report
6. Preliminary Water and Sewer System Approval Letter
7. Technical Memorandum – City Engineering Review
8. Traffic Impact Analysis – [click here to access.](#)
 - a. VHB TIA Review



Ashley Ownbey, Development Director

Request to modify a conditional zoning district, B-2(CD),
by Hendon Tiller Mebane 3.0 LLC





Legend

- Subject Property
- City Limits

Mebane Zoning Districts

- B-2 | General Business
- B-2 (CD) | General Business Conditional
- R-8 | Residential
- R-12 | Residential
- R-20 | Residential



**CITY OF MEBANE
ZONING MAP**

**CONDITIONAL REZONING
AMENDMENT
TRACTOR SUPPLY**

1 inch = 300 feet

DATE: 02/05/24

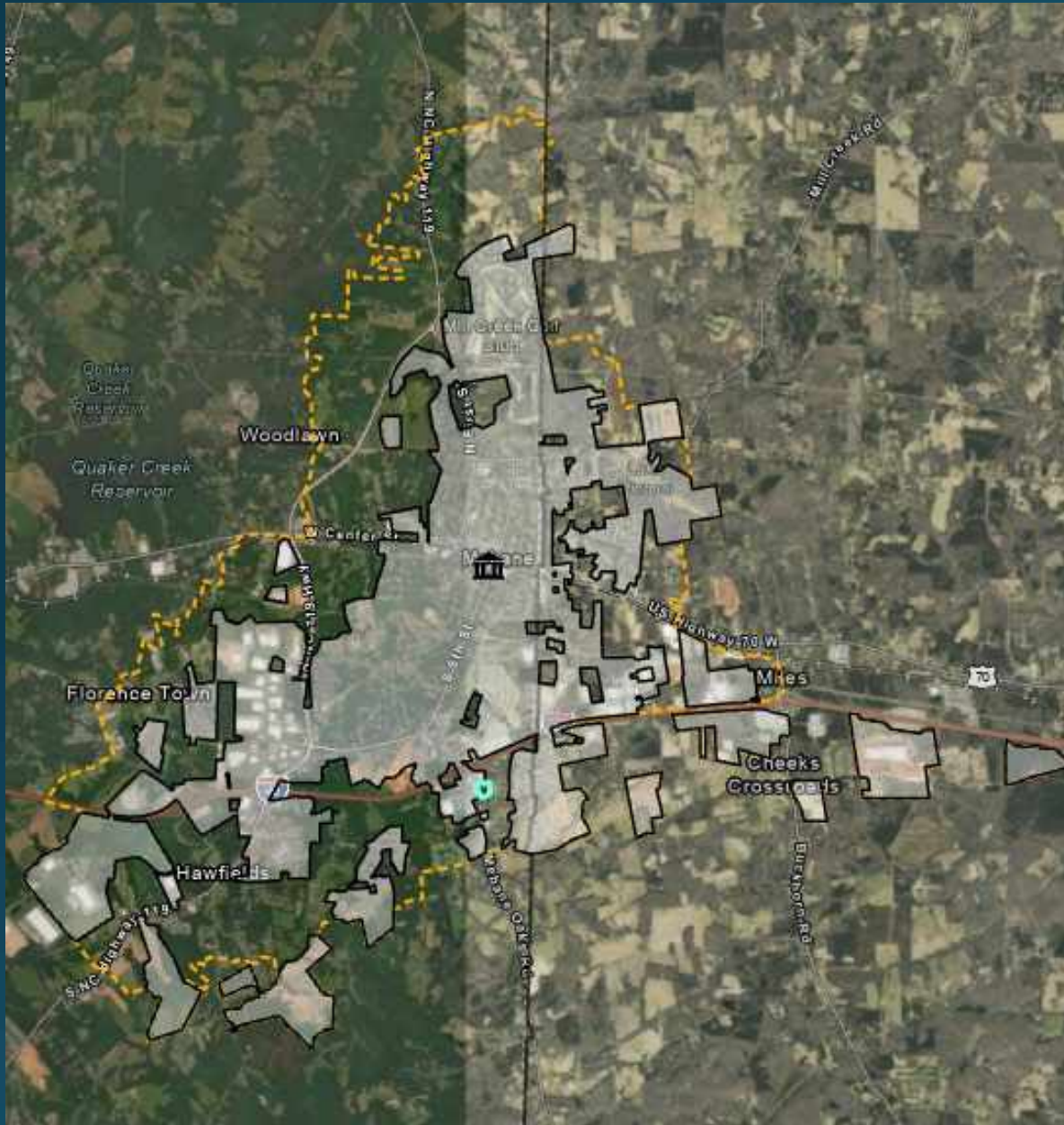
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Tractor Supply

Conditional Rezoning Request

- Request by Hendon Tiller
Mebane 3.0 LLC
- Three lots, totaling +/- 6.19
acres
- Existing zoning: B-2 (CD)
- Requested zoning: B-2 (CD)
with revised conditions





Tractor Supply

Conditional Rezoning Request

- Mebane City Limits
- The site was annexed after original approval of B-2 (CD) zoning.





Tractor Supply

Conditional Rezoning Request

- Gravel parking, forested, stormwater pond
- Surrounding uses include:
 - Restaurants
 - Retail
 - Medical and Veterinary offices, Fitness Gym, and Other Professional Service Uses
 - Residential





Tractor Supply Conditional Rezoning Request

- *Mebane By Design* G-4 Secondary Growth Strategy Area



Tractor Supply

Conditional Rezoning Request

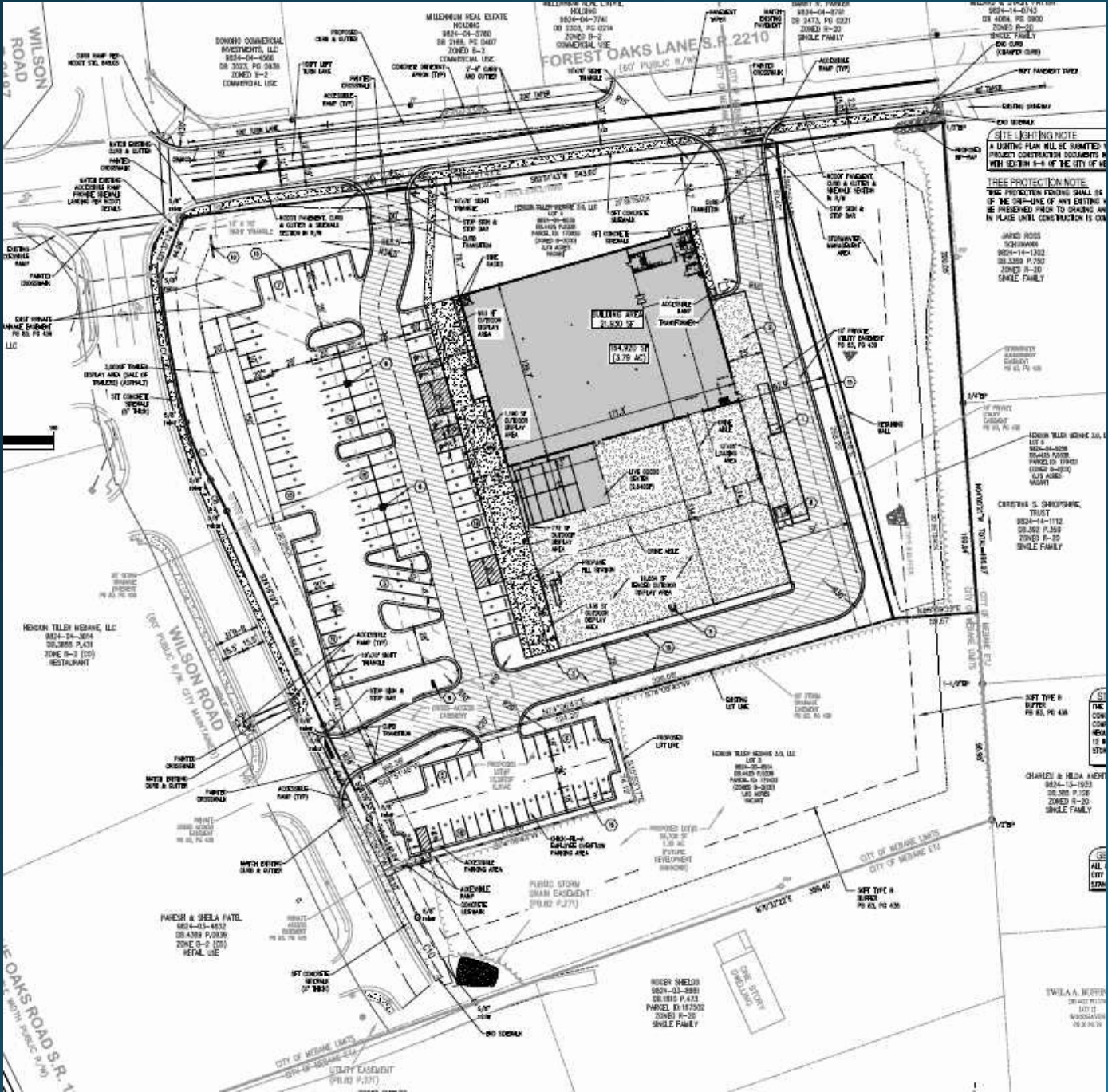
Modification of the B-2(CD) zoning is requested as the right-of-way for the required to extend Wilson Road could not be secured and a TIA has been completed.

Amendments to original site-specific plan:

- Reduced curb and gutter on Forest Oaks Lane
- Addition of crosswalks at the intersection of Wilson Road and Forest Oaks Lane and at a mid-block location on Wilson Road
- Minor modification to the parking lot layout
- Lot 5 to be subdivided into new Lot 5 and Lot 7
- Garden Center replaced with Live Goods Center

Proposed Conditions:

- Stormwater pond constructed for a 100-year storm event.
- Outdoor display area equal to 16.22% of total site area.





Applicant Presentation





APPLICATION FOR A ZONING AMENDMENT

Application is hereby made for an amendment to the Mebane Zoning Ordinance as follows:

Name of Applicant: HENDON TILLER MEBANE S.O, LLC

Address of Applicant: 6.19 ACRES - FOREST OAKS & WILSON ROAD EXT.

Address and brief description of property to be rezoned: 6.19 acres - undeveloped property to the east of Wilson Road Extension

Applicant's interest in property: (Owned, leased or otherwise) FEE SIMPLE OWNER

*Do you have any conflicts of interest with: Elected/Appointed Officials, Staff, etc.?

Yes ___ Explain: _____ No

Type of re-zoning requested: REVISION to a zoning requirement

Sketch attached: Yes sent under separate email; No

Reason for the requested re-zoning: UNABLE TO REACH AGREEMENT WITH ADJOINING LAND OWNER

Signed: *Hendon Tiller*

Date: 1-24-24

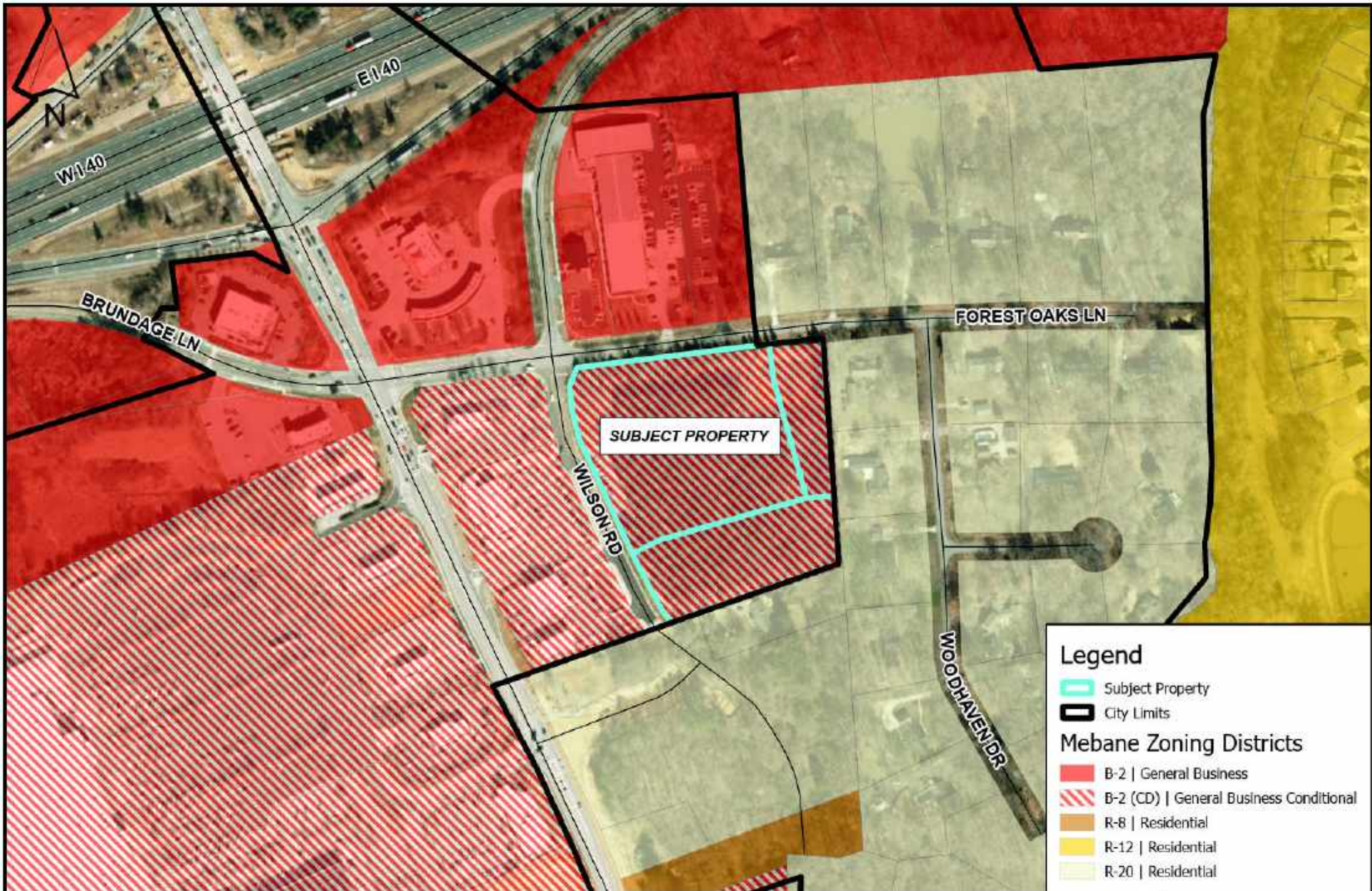
Action by Planning Board: _____

Public Hearing Date: _____ Action: _____

Zoning Map Corrected: _____

The following items should be included with the application for rezoning when it is returned:

1. Tax Map showing the area that is to be considered for rezoning.
2. Names and addresses of all adjoining property owners within a 300' radius (Include those that are across the street).
3. \$300.00 Fee to cover administrative costs.
4. The information is due 15 working days prior to the Planning Board meeting. The Planning Board meets the 2nd Monday of each month at 6:30 p.m. Then the request goes to the City Council for a Public Hearing the following month. The City Council meets the 1st Monday of each month at 6:00 p.m.



**CITY OF MEBANE
ZONING MAP**

**CONDITIONAL REZONING
AMENDMENT
TRACTOR SUPPLY**

1 inch = 300 feet

DATE: 02/05/24

DRAWN BY: RG

The site plan can be downloaded through the following link:

<https://cityofmebane.sharefile.com/public/share/web-se58fcba448fe479ba763c41231d6caa1>

APLANNING PROJECT REPORT

DATE	03/06/2024
PROJECT NUMBER	RZ 23-01 - Amended
PROJECT NAME	Tractor Supply Hendon Tiller Mebane 3.0, LLC
APPLICANT	Attn. Mark Tiller 3445 Peachtree Rd NE #465 Atlanta, GA 30326

CONTENTS

PROJECT NAME & APPLICANT	PAGE 1
SUMMARY OF CHANGES	PAGE 2
ZONING REPORT	PAGE 3
LAND USE REPORT	PAGE 5
UTILITIES REPORT	PAGE 8
STAFF RECOMMENDATION	PAGE 9

SUMMARY OF CHANGES:

Since RZ 23-01 was approved on April 3, 2023, the +/- 6.19-acre parcel has been subdivided into three lots. Lot 4 is proposed to be developed as the farm supplies and equipment retail use, Lot 5 is reserved for future commercial development, and Lot 6 will be primarily utilized as a stormwater management area. The revised site-specific plan proposes that Lot 5 will be subdivided into two lots. The proposed new Lot 7 is intended to be sold to Chick-Fil-A for use as a staff and overflow parking lot. The site plan shows three driveways, with two on Forest Oaks Lane and one on Wilson Road. The driveway on Wilson Road will provide shared access for the proposed Lots 4, 5, and 7. The City Council approved the property's annexation into Mebane's City Limits on June 5, 2023, and the annexation plat was recorded on June 29, 2023, in the Alamance County Register of Deeds.

Additional changes to the site plan originally approved by the Mebane City Council include:

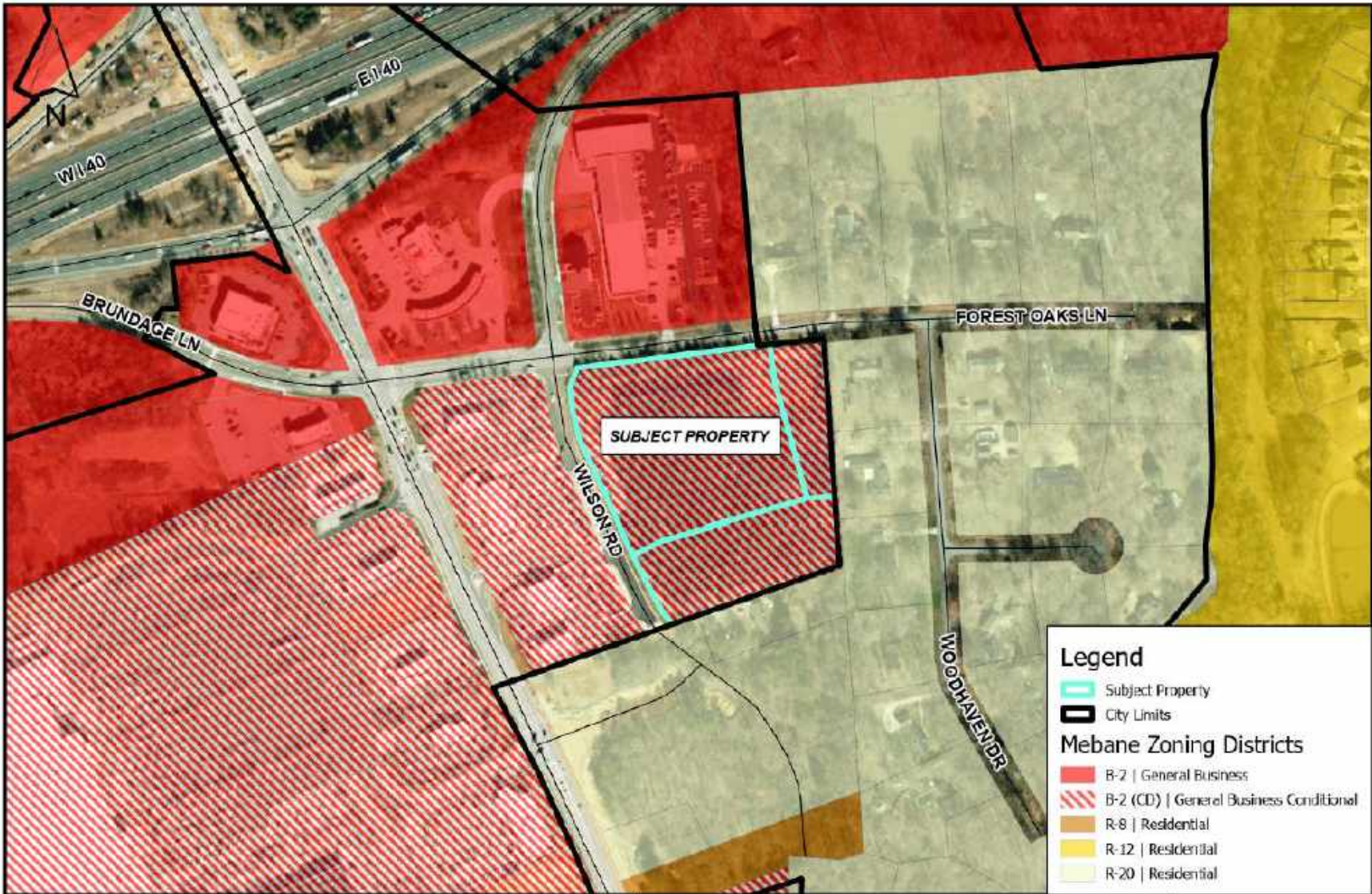
- A reduction in the amount of curb and gutter on Forest Oaks Lane. The new site plan shows curb and gutter on Forest Oaks Lane opposite the site ending at the second commercial driveway on Forest Oaks Lane. The original site plan had curb and gutter extending past the first residential driveway on Forest Oaks Lane.
- The addition of crosswalks at the intersection of Wilson Road and Forest Oaks Lane and a mid-block crossing of Wilson Road.
- A minor modification to the parking lot layout around the entrance to the fenced outdoor display area.
- The 3,827 square-foot Garden Center has been changed to a 2,640 square-foot Live Goods Center. This has increased the outdoor display area from 24,040 square feet (14.58% of the site area) to 26,745 square feet (16.22% of the site area). Of the total outdoor display area, 2,640 square feet will be covered, 19,654 square feet will be fenced, and the remaining 4,451 square feet will be uncovered and unfenced.

As the developer did not secure the right-of-way needed to extend Wilson Road, a TIA was submitted for this project. The developer is required to make the following improvements:

- Provide a westbound left turn lane on Forest Oaks Lane with adequate storage and taper, as required by the NCDOT and the City of Mebane.
- Construction of the three site driveways with one ingress lane and one egress lane striped as a shared left-right turn lane operating under stop-control.
- Compliance of multimodal transportation requirements will be examined by staff to ensure adequacy of pedestrian, bike, and transit facilities along the property frontage. Additional crosswalks shall be considered at the intersection of Wilson Road and Forest Oak Lane.

ZONING REPORT

EXISTING ZONE	B-2 (CD) (General Business Conditional District)
REQUESTED ACTION	B-2 (CD) (General Business Conditional District) – Revised Conditions
CONDITIONAL ZONE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
CURRENT LAND USE	Vacant, Gravel Parking Lot, Forested
PARCEL SIZE	+/- 6.19 acres
PROPERTY OWNERS	Hendon Tiller Mebane 3.0 LLC 3445 Peachtree Rd NE #465 Atlanta, GA 30326 GPINs: 9824046036, 9824049256, and 9824038914
LEGAL DESCRIPTION	Request to modify the conditional zoning district, B-2(CD), of three lots, totaling +/- 6.19-acres and located at Wilson Road and Forest Oaks Lane (GPINs 9824046036, 9824049256, and 9824038914) to allow for a farm supplies and equipment retail use by Hendon Tiller Mebane 3.0, LLC.
AREA ZONING & DISTRICTS	The properties to the west, across Wilson Road, are zoned B-2 (CD), General Business Conditional District. The properties to the north, across Forest Oaks Lane, are a mix of B-2, General Business and R-20, Residential. The properties to the east and south are all zoned R-20, Residential.
SITE HISTORY	The property has historically been sparsely forested although it is currently taxed as vacant commercial land. The gravel parking lot, utilized by Chick-Fil-A, was added between 2018 and 2020. A stormwater pond, currently serving the Wendy's and Chick-fil-A developments, is also on the property.
STAFF ANALYSIS	
CITY LIMITS?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
PROPOSED USE BY-RIGHT?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
SPECIAL USE?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
EXISTING UTILITIES?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
POTENTIAL IMPACT OF PROPOSED ZONE	The proposed rezoning is consistent with the B-2 (CD) and B-2 zoning of the properties to the north and west of the subject property. The proposed development will introduce a commercial use in close proximity to an existing residential neighborhood. However, the proposed site plan includes a stormwater control area on the east side of the property and a semi-opaque buffer.



Legend

- Subject Property
 - City Limits
- Mebane Zoning Districts**
- B-2 | General Business
 - B-2 (CD) | General Business Conditional
 - R-8 | Residential
 - R-12 | Residential
 - R-20 | Residential



**CITY OF MEBANE
ZONING MAP**

**CONDITIONAL REZONING
AMENDMENT
TRACTOR SUPPLY**

1 inch = 300 feet

DATE: 02/05/24

DRAWN BY: RG

LAND USE REPORT

EXISTING LAND USE	Vacant, Gravel Parking Lot, Forested
PROPOSED LAND USE & REQUESTED ACTION	The applicant is requesting a rezoning to develop three lots, totaling +/- 6.19 acres, with frontages on Wilson Road and Forest Oaks Lane (GPINs: 9824046036, 9824049256, and 9824038914) for a farm supplies and equipment retail use. The applicant intends to re-subdivide the property into four lots. Lot 4 will be utilized for the farm supplies and equipment retail use, Lot 5 will be reserved for future commercial development, Lot 6 will be utilized as a stormwater management area, and Lot 7 is proposed to be sold to Chick-Fil-A for their use as a staff and overflow parking lot.
PROPOSED ZONING	B-2 (CD) (General Business Conditional District) – revised conditions
PARCEL SIZE	+/- 6.19 acres
AREA LAND USE	The subject property is located just east of an arterial commercial strip along Mebane Oaks Road. The properties to the west are developed with a Wendy’s, Chick-Fil-A, and Aspen Dental. The properties to the north include Southern Animal Hospital and a multi-use commercial building that includes a gym, insurance office, and other similar uses. There are developed residential lots to the south, east, and northeast of the subject property.
ONSITE AMENITIES & DEDICATIONS	The applicant proposes a 5’ sidewalk on the east side of Wilson Road and on the south side of Forest Oaks Lane. Curb and gutter will be constructed on Forest Oaks Lane as shown on the site plan and approved by the NCDOT. The revised site plan shows a reduction in how far the curb and gutter extends along Forest Oaks Lane on the opposite side of the site.
CONDITIONAL ZONE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
DESCRIPTION OF PROPOSED CONDITIONS	The applicant has offered to construct the stormwater pond for a 100-year storm event. As noted on Sheet C4.0, the current design is considered by staff to be conceptual and additional design details are required with construction plans. The applicant has requested a total outdoor display area of 26,745 square feet or 16.22% of the site area. The development standards for this particular use, which are found in Section 4-7.8.H of the Mebane UDO, include a limit on the outdoor area devoted to the display and sales of retail goods to a maximum of 15 percent of the net developable lot area. Of the total proposed outdoor display area, 2,640 square feet will be covered, 19,654 square feet will be fenced, and the remaining 4,451 square feet will be uncovered and unfenced.

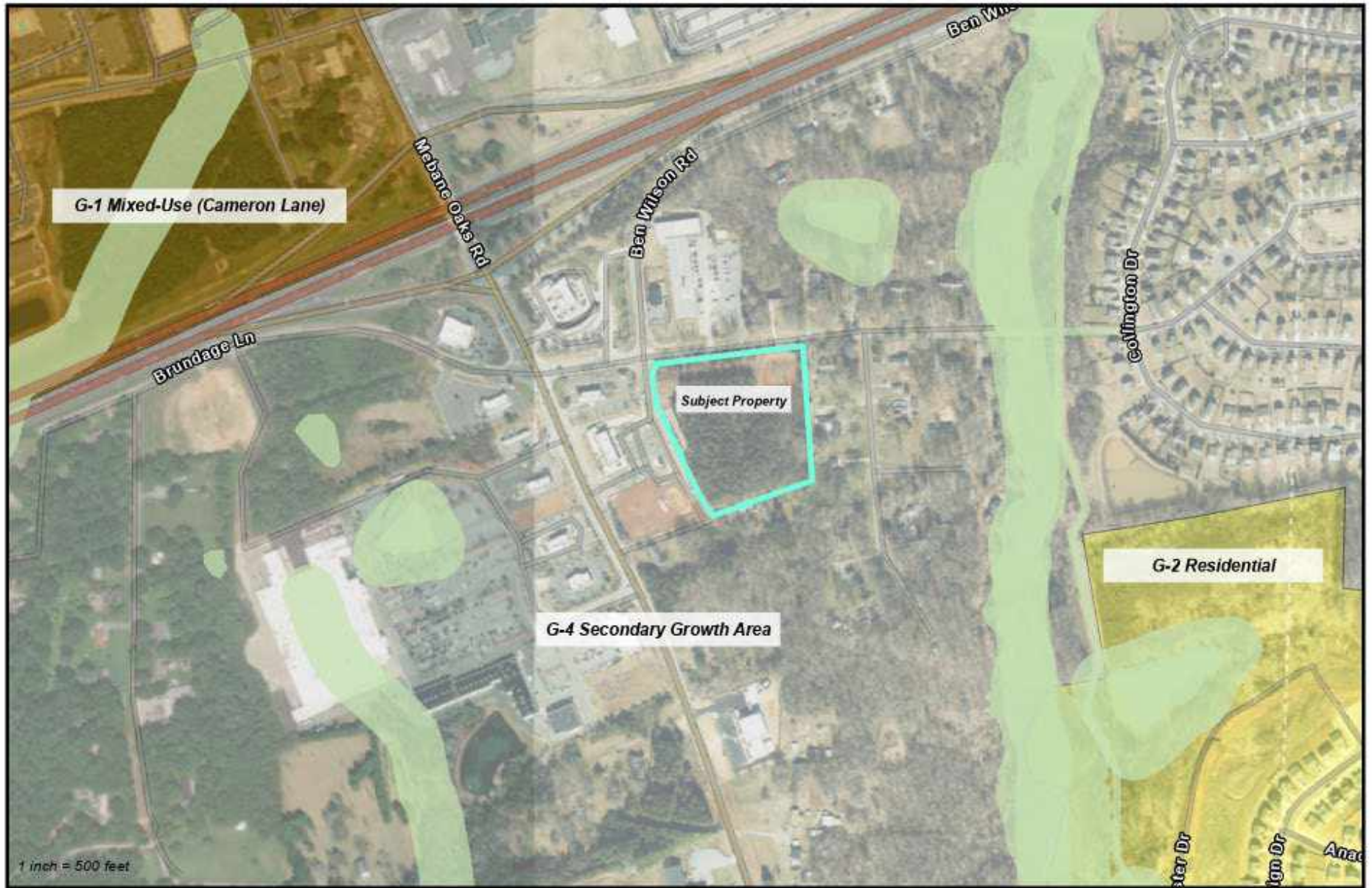
CONSISTENCY WITH *MEBANE BY DESIGN* STRATEGY

LAND USE GROWTH STRATEGY DESIGNATION(S) G-4 Secondary

OTHER LAND USE CONSIDERATIONS Mebane Oaks Road Small Area Plan

MEBANE BY DESIGN GOALS & OBJECTIVES SUPPORTED

MEBANE BY DESIGN GOALS & OBJECTIVES NOT SUPPORTED



UTILITIES REPORT

AVAILABLE UTILITIES	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
PROPOSED UTILITY NEEDS	<p>Per the memorandum from Franz Holt of AWCK, the anticipated water use for the proposed development is 2,500 gallons per day and the anticipated wastewater use is less than 2,500 gallons per day. The development will be served by connecting to Mebane's existing 12-inch water line on Forest Oaks Lane. The project will be connected to the existing sewer system by extending a new 6-inch private sewer service line from an existing manhole located on Forest Oaks Lane. Additionally, a 6-inch private sewer service will be extended from a newly set manhole over Mebane's 8-inch gravity line in Forest Oaks Lane, through Lot 4 and ending at the Lot 5 property line with a private easement dedicated over the service line.</p>
UTILITIES PROVIDED BY APPLICANT	Applicant has pledged to provide all on-site utilities, as described in AWCK's Technical Memo.
MUNICIPAL CAPACITY TO ABSORB PROJECT	The City has adequate water & sewer supply to meet the domestic and fire flow demands of the project.
CONSISTENCY WITH MEBANE LONG RANGE UTILITY PLAN?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
ADEQUATE STORMWATER CONTROL?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
INNOVATIVE STORMWATER MANAGEMENT?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

TRANSPORTATION NETWORK STATUS

CURRENT CONDITIONS	<p>The subject property is situated south of Forest Oaks Lane and east of Wilson Road. The site plan features two proposed driveway entrances on Forest Oaks Lane and one proposed driveway entrance on Wilson Road. The driveway from Wilson Road is proposed to provide access to Lots 4, 5, and 7 of the proposed subdivision. Both Forest Oaks Lane and Wilson Road are maintained by the NCDOT.</p> <p>NCDOT does not provide traffic count data for Forest Oaks Lane or Wilson Road. Mebane Oaks Road, to the west of the site, had an average daily traffic volume of 26,000 trips in 2021.</p> <p>From 2017 to 2021, 42 crashes were recorded at the intersection of Forest Oaks Lane and Mebane Oaks Road.</p>
TRAFFIC IMPACT ANALYSIS REQUIRED?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

DESCRIPTION OF RECOMMENDED IMPROVEMENTS

As the developer did not secure the right-of-way needed to extend Wilson Road, a TIA was submitted for this project. The developer is required to make the following improvements:

- Provide a westbound left turn lane on Forest Oaks Road with adequate storage and taper, as required by the NCDOT and the City of Mebane.
- Construct all drives with one ingress lane and one egress lane striped as a shared left-right turn lane operating under stop-control. Due to intersection spacing concerns, permitting of a driveway at Site Drive 1 on Forest Oaks Lane is subject to meeting adequate design and sight distance requirements.
- Compliance of multimodal transportation requirements will be examined by staff to ensure adequacy of pedestrian, bike, and transit facilities along the property frontage. Additional crosswalks shall be considered at the intersection of Wilson Road and Forest Oak Lane.

CONSISTENCY WITH THE MEBANE BICYCLE AND PEDESTRIAN TRANSPORTATION PLAN?

YES NO

MULTIMODAL IMPROVEMENTS PROVIDED BY APPLICANT?

YES NO

DESCRIPTION OF MULTIMODAL IMPROVEMENTS

The applicant proposes to construct a sidewalk for the length of the property on the south side of Forest Oaks Lane and on the east side of Wilson Road. Bike racks will also be provided in accordance with UDO requirements. Crosswalks will be provided at the intersection of Wilson Road and Forest Oaks Lane and at a mid-block location on Wilson Road.

STAFF RECOMMENDATION

STAFF ZONING RECOMMENDATION

APPROVE DISAPPROVE

STAFF SPECIAL USE FINDING

CONSISTENT NOT CONSISTENT.....WITH *MEBANE BY DESIGN*

RATIONALE

The proposed development "Tractor Supply" is consistent with the guidance provided within Mebane By Design, the Mebane Comprehensive Land Development Plan. The project is in harmony with surrounding commercial uses.



February 6, 2024

Mr. Matt Lowder, PE
Bowman North Carolina, Ltd.
4006 Barrett Drive, Suite 104
Raleigh, NC 27609

Subject: Tractor Supply – Water and Sewer System Layout

Dear Mr. Lowder:

Regarding the Preliminary Site Plans for Tractor Supply and in accordance with the UDO, this memo is provided to indicate that I have reviewed the preliminary water and sewer system layout and find it acceptable and meets City standards based on the following:

- A. Water system – The project is proposed to be served by connecting to Mebane’s existing 12-inch water line on Forest Oaks Lane. Extension of private domestic (2-inch), irrigation service (1-inch) and fire line (6-inch) are shown with appropriate backflow prevention and fire hydrant locations. The estimated water use is 2,500 gallons per day (100 gallons/1,000 square feet per State 2T rules). The City has adequate water capacity available to meet the project’s domestic demand and fire flow requirements.
- B. Sanitary Sewer system – The project is proposed to be served by extending a new 6-inch private sewer service line from an existing manhole located at Forest Oaks Lane to the new building by steel encasement bore and jack under Forest Oaks Lane. Additionally, a 6-inch private sewer service will be extended from a newly set manhole over Mebane’s 8-inch gravity line in Forest Oaks Lane, through lot 4 and ending at the lot 5 property line with a private easement being over the service line by steel encasement bore and jack under Forest Oaks Lane. The estimated wastewater from this project is less than 2,500 gallons per day (100 gallons/1,000 square feet per State 2T rules). The City has adequate wastewater capacity available at the downstream Southeast Regional Pump Station and at the WRRF to meet this demand.

If there are any questions, please let me know.

Sincerely,

A handwritten signature in black ink that reads "Franz K. Holt".

Franz K. Holt, P.E. City Engineer

CC: Ashley Ownbey, Dev. Director
Kyle Smith, Utilities Director



Technical Memorandum

Date: February 6, 2024

To: Ashley Ownbey, Development Director

From: Franz K. Holt, P.E.

Subject: Tractor Supply – City Engineering review

City Engineering has reviewed Site Plans submitted for Tractor Supply on Wilson Road (Extension) dated January 11, 2024, prepared by Matt Lowder, P.E. with Bowman North Carolina, Ltd. Of Raleigh, NC. Our technical review comments are as follows:

A. General Summary

1. The Tractor Supply includes a 21,147 square foot facility (one story) and 3,827 square foot garden center on a newly created lot no. 4 (3.79 acres), with lot no. 7 (0.31 acre) designated for Chick-Fil-A employee overflow parking and lot no. 6 (0.75 acres) designated as a stormwater management lot. The subdivision is along City owned/maintained Wilson Road (Extension) and NCDOT owned/maintained Forest Oaks Lane S.R. 2210.
2. On-site stormwater controls are proposed that treat the runoff from a 1-inch rain and reduce the peak stormwater discharge rates for post construction runoff is no more than the pre-development rates for up to a 100-year storm event.
3. City of Mebane public water and sewer lines are available for service extensions to the facility. Additionally, a private sewer extension will be made to lot no. 5 through lot no. 4.
4. Street Access has one proposed driveway connection to Wilson Road (Extension) and two connections to Forest Oaks Lane with a proposed left turn lane onto Wilson Road (Extension) from Forest Oaks Lane.
5. The plans include a sidewalk along the south side of Forest Oaks Lane and the east side of Wilson Road (Extension).
6. NCDOT plan approvals, driveway permits, and encroachment agreements are required by NCDOT for the proposed improvements to and along Forest Oaks Lane.



B. Availability of City Water and Sewer

Regarding the Preliminary Site Plans for Tractor Supply and in accordance with the UDO, this memo is provided to indicate that I have reviewed the preliminary water and sewer system layout and find it acceptable and meets City standards based on the following:

1. Water system – The project is proposed to be served by connecting to Mebane’s existing 12-inch water line on Forest Oaks Lane. Extension of private domestic (2-inch), irrigation service (1-inch) and fire line (6-inch) are shown with appropriate backflow prevention and fire hydrant locations. The estimated water use is 2,500 gallons per day (100 gallons/1,000 square feet per State 2T rules). The City has adequate water capacity available to meet the project’s domestic demand and fire flow requirements.
2. Sanitary Sewer system – The project is proposed to be served by extending a new 6-inch private sewer service line from an existing manhole located at Forest Oaks Lane to the new building by steel encasement bore and jack under Forest Oaks Lane. Additionally, a 6-inch private sewer service will be extended from a newly set manhole over Mebane’s 8-inch gravity line in Forest Oaks Lane, through lot 4 and ending at the lot 5 property line with a private easement being over the service line by steel encasement bore and jack under Forest Oaks Lane. The estimated wastewater from this project is less than 2,500 gallons per day (100 gallons/1,000 square feet per State 2T rules). The City has adequate wastewater capacity available at the downstream Southeast Regional Pump Station and at the WRRF to meet this demand.

C. Watershed Overlay District and Phase II Stormwater Requirements

1. UDO Watershed Overlay District requirements.

These requirements in the UDO include the Back-Creek Watershed and Graham-Mebane Lake. The project is tributary to the Little Haw Creek; a Class V watershed and the Watershed Overlay District requirements do not apply to this project. This type of watershed classification (Class V) does not have density restrictions or built upon restrictions as required for the Graham Mebane Lake watershed.



2. Phase II Stormwater Post Construction Ordinance

Sec. 5.1 in the UDO provides standards for Storm Water Management and 5.1.F requires compliance with the Mebane Post Construction Runoff Ordinance. Built upon an area of more than 24% requires engineered stormwater controls. As this project exceeds the 24% threshold, proposed engineered stormwater controls are provided on the site plans and include a fenced wet pond with detention being provided for up to a 100 yr. storm event where post construction stormwater runoff peak discharges are no more than predevelopment rates. This wet pond serves as a shared device for Wendy's, Chick-fil-a, Tractor Supply, and Chick-fil-a employee overflow parking.

D. Storm Drainage System

The UDO provides requirements for storm drainage systems. The site plans include a storm drainage system layout that indicates certain pipe locations, inlets, and all being directed to the engineered stormwater control device located at the rear of the property.

E. Street Access

A TIA was required for this project with certain improvements being indicated as follows:

Forest Oaks Lane and Wilson Road

- Provide a westbound left turn lane on Forest Oaks Road with minimal storage and taper [as requested by NCDOT]. This improvement could be provided by restriping the existing pavement on Forest Oaks Lane to provide storage for 1-2 vehicles.

Forest Oaks Lane and Site Drive 1

- Construct Site Drive 1 with one ingress lane and one egress lane striped as a shared left-right turn lane operating under stop-control.

Forest Oaks Lane and Site Drive2

- Construct Site Drive 2 with one ingress lane and one egress lane striped as a shared left-right turn lane operating under stop-control.

F. Construction Plan Submittal

The UDO requires final site construction plans to be submitted for TRC review and approval.

The traffic impact analysis (TIA) can be downloaded through the following link:

<https://cityofmebane.sharefile.com/public/share/web-se58fcba448fe479ba763c41231d6caa1>



Memorandum

To: Ashley Ownbey
Development Director
City of Mebane

Date: January 23, 2023

C. N. Edwards Jr., PE
District Engineer
NCDOT Highway Division 7 District 1

Project #: 39160.00, Task 23

From: Baohong Wan, PhD, PE

Re: Mebane Tractor Supply Traffic Impact Analysis
Technical Review
Mebane, NC

A Traffic Impact Analysis (TIA) was prepared by Ramey Kemp Associates for the proposed Tractor Supply in the southeast quadrant of the intersection of Forest Oaks Lane and Wilson Road in Mebane, North Carolina. Per request by the City of Mebane, VHB conducted an independent review of the Mebane Tractor Supply TIA. This memo provides a list of critical findings, followed by an in-depth summary of study process and analysis results of the TIA.

List of Mitigation Recommendations

The following items in **red** should be considered in addition to mitigation measures that have been identified within the Mebane Tractor Supply TIA:

- › Forest Oaks Lane and Wilson Road
 - Provide a westbound left turn lane on Forest Oaks Road with ~~minimal~~ **adequate** storage and taper [as requested by NCDOT **and the City of Mebane**].
- › Forest Oaks Lane and Site Drive 1
 - Construct Site Drive 1 with one ingress lane and one egress lane striped as a shared left-right turn lane operating under stop-control.
 - **Due to intersection spacing concerns, permitting of a driveway at this location is subject to meeting adequate design and sight distance requirements.**
- › Forest Oaks Lane and Site Drive 2
 - Construct Site Drive 2 with one ingress lane and one egress lane striped as a shared left-right turn lane operating under stop-control.
- › **Wilson Road and Site Drive 3 (not analyzed in the TIA)**
 - **Construct Site Drive 3 with one ingress lane and one egress lane striped as a shared left-right turn lane operating under stop-control.**
- › **Multimodal Considerations: Compliance of multimodal transportation requirements should be examined to ensure adequacy of pedestrian, bike, and transit facilities along the property frontage. Additional crosswalks should be considered at the intersection Wilson Road and Forest Oak Lane.**

VHB Engineering NC, P.C. (C-3075)

Engineers | Scientists | Planners | Designers

Venture I, 940 Main Campus Drive, Suite 500, Raleigh, North Carolina 27606

P 919.829.0328 F 919.833.0034 www.vhb.com

General Comments

Wilson Road Connector

- › Wilson Road Connector is shown in STIP I-5711 roadway design files, signal design plans (Inv# 07-2060), and site plan (Figure 2) included in the TIA. However, due to uncertainties of Wilson Road extension, the intersection of Mebane Oaks Road and Walmart Driveway was analyzed as a T-intersection in the TIA. Traffic performance at this intersection could be worse if it is analyzed as a four-leg intersection.
- › The left-turn storage along Garrett Crossing (Walmart Driveway) at Mabane Oaks Road is insufficient and could potentially cause lane blockage and inefficient traffic operations. Longer queue is expected with a fourth leg added at this location. Restriping Garrett Crossing (Walmart Driveway) to provide longer storage should be considered to improve traffic operations and safety.

Wilson Road Extension

- › Though not analyzed in this study, extension of Wilson Road to intersect Mebane Oaks Road opposite Walmart Driveway could result in different traffic ingress and egress patterns to Tractor Supply and other establishments along Wilson Road. This potential change is anticipated to provide additional ways and alleviate traffic congestion along Wilson Road.

Forest Oaks Lane and Site Drive 1

- › Spacing between Site Drive 1 and Wilson Road is less than ideal for full movement access considerations. Limiting traffic movements to right-in/right-out at Site Drive 1 may be considered if adequate traffic circulation can still be provided.

Wilson Road and Site Drive 3

- › Site Drive 3 on Wilson Road was omitted in the capacity analysis. Site Drive 3 should be subject to typical standards for laneage, sight triangle and IPS requirements.

Synchro Capacity Analysis

- › The third northbound lane along Mebane Oaks Road at Forest Oaks Lane is coded as a pocket lane on the right-hand side of road with 350' of storage in Synchro, while this storage is omitted in the TIA report. Field check indicates that this pocket lane is located on the left side of northbound approach.
- › Synchro models have several extra intersections with zero traffic volumes. Although traffic operations at these intersections are not required to be analyzed in the TIA, including them in Synchro models may have slight impact on corridor signal timing optimization and traffic simulation results.

Summary of TIA Assumptions and Results

Development Plan

The proposed Mebane Tractor Supply will consist of 21,200 square feet (sf) of retail space. According to the TIA, the proposed development is expected to generate 361 daily trips with 34 trips (21 entering, 13 exiting) occurring in the AM peak hour and 63 trips (29 entering, 34 exiting) occurring in the PM peak hour.

Access to the site is to be provided via two (2) new full movement driveways on Forest Oaks Lane and one (1) new full movement driveway on Wilson Road that will align with an existing driveway.

Study Area and Analysis Scenarios

The TIA included capacity analyses during the weekday AM and PM peak hours under the following scenarios:

Engineers | Scientists | Planners | Designers

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P 919.829.0328 F 919.833.0034 www.vhb.com

- › Existing (2023) Conditions
- › Background (2024) Conditions
- › Build-out (2024) Conditions

Through coordination with NCDOT and the City of Mebane, the following intersections were analyzed in the TIA:

- › Mebane Oaks Road and Forest Oaks Lane – Signalized
- › Mebane Oaks Road and Walmart Driveway – Signalized
- › Forest Oaks Lane and Wilson Road – Unsignalized
- › Forest Oaks Lane and Proposed Site Driveways (2) – Unsignalized

Existing and No-Build Analysis Assumptions

Existing (2023) analysis was conducted based on traffic counts collected in February 2023 during weekday AM (7 to 9 AM) and PM (4 to 6 PM) peak hours while area schools were in session.

The No-Build scenario included an annual growth rate of one percent (1.0%) between the existing year (2023) and the future analysis year (2024). In addition, site trips due to the following adjacent development were identified and included in the future year analyses:

- › Deep River
- › The Meadows
- › Summit Church
- › Meadowstone Townhomes
- › McKays Book Store
- › Mebane Oaks Mixed-Use (Evolve)

Based on coordination with NCDOT and the City, it was determined that roadway improvements that will be made by the NCDOT State Transportation Improvement Program (STIP) project I-5711 should be considered in this study. Within the study area, STIP I-5711 is expected to provide additional northbound and southbound through lanes along Mebane Oaks Road from Arrowhead Road to the signalized Wal-Mart driveway.

Trip Generation & Distribution

Since the ITE Trip Generation Manual, 11th Edition does not include enough data points for a Tractor Supply Store (ITE Code 810), multiple land uses were considered to estimate the trip generation potential for the proposed development. According to the TIA, the proposed development is expected to generate 361 daily trips with 34 trips (21 entering, 13 exiting) occurring in the AM peak hour and 63 trips (29 entering, 34 exiting) occurring in the PM peak hour.

Traffic assignment for the development was based on the following trip distribution assumptions:

- › 60% to/from the north via Mebane Oaks Road
- › 30% to/from the south via Mebane Oaks Road
- › 10% to/from the north/east via Wilson Road

Capacity Analysis Results

Capacity analyses in the TIA were conducted following the NCDOT Congestion Management Capacity Analysis Guidelines. The analysis results and mitigation determinations are summarized below for each individual intersection, while LOS and delay are reported and summarized for stop-controlled approaches at unsignalized intersections.

Mebane Oaks Road and Forest Oaks Lane (signalized)

ID	Intersection and Approach	2023 Existing		2024 No-Build		2024 Build		2024 Build w/ Imp	
		AM	PM	AM	PM	AM	PM	AM	PM
1	Mebane Oaks Road & Brundage Lane/Forest Oaks Lane	C (31.8)	C (30.4)	C (20.6)	B (19.5)	C (21.0)	C (20.6)	C (21.0)	C (20.6)
	Eastbound	E-68.3	E-67.6	D-53.0	D-49.0	D-53.0	D-48.5	D-53.0	D-48.5
	Westbound	F-80.9	F-82.5	D-51.1	D-50.2	D-50.6	D-50.2	D-50.6	D-50.2
	Northbound	B-16.6	B-17.3	B-17.1	B-13.9	B-17.8	B-15.2	B-17.8	B-15.2
	Southbound	C-20.5	C-22.7	A-7.7	B-12.1	A-8.1	B-12.9	A-8.1	B-12.9

The TIA indicated that the signalized intersection is expected to operate at LOS C during both the AM and PM peak hours under the Build-out conditions with the STIP I-5711 improvements in place. Since the intersection is expected to operate acceptably with the development in place, no improvements were recommended in the TIA.

Mebane Oaks Road and Wal-Mart Driveway (signalized)

ID	Intersection and Approach	2023 Existing		2024 No-Build		2024 Build		2024 Build w/ Imp	
		AM	PM	AM	PM	AM	PM	AM	PM
2	Mebane Oaks Road & Walmart Driveway	A (9.6)	C (20.9)	A (7.6)	B (19.3)	A (7.7)	B (19.3)	A (7.7)	B (19.3)
	Eastbound	D-44.0	D-41.5	D-51.9	D-48.6	D-51.9	D-48.6	D-51.9	D-48.6
	Northbound	A-2.3	A-5.0	A-2.2	A-5.1	A-2.2	A-5.1	A-2.2	A-5.1
	Southbound	A-6.9	B-14.1	A-3.9	B-10.7	A-4.1	B-11.0	A-4.1	B-11.0

The TIA indicated that the signalized intersection is expected to operate at LOS A or B during both the AM and PM peak hours under the Build-out conditions with the STIP I-5711 improvements in place. Since the intersection is expected to operate acceptably with the development in place, no improvements were recommended in the TIA.

It should be noted that Wilson Road Connector is shown in STIP I-5711 roadway design files, signal design plans (Inv# 07-2060), and site plan (Figure 2) included in the TIA. However, due to uncertainty of Wilson Road extension, the intersection of Mebane Oaks Road and Walmart Driveway was analyzed as a T-intersection in the TIA. Traffic performance at this intersection could be worse if it is analyzed as a four-leg intersection.

In addition, the left-turn storage along Garrett Crossing (Walmart Driveway) at Mebane Oaks Road is insufficient to accommodate projected queuing, and it could potentially cause lane blockage and inefficient traffic operations. Longer queue is expected with a fourth leg added at this location. As a result, restriping Garrett Crossing (Walmart Driveway) to provide longer storage length may be considered to improve traffic operations and safety at this location.

Forest Oaks Lane and Wilson Road (unsignalized)

ID	Intersection and Approach	2023 Existing		2024 No-Build		2024 Build		2024 Build w/ Imp	
		AM	PM	AM	PM	AM	PM	AM	PM
3	Wilson Road & Forest Oaks Lane	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Northbound	B-13.6	C-16.2	C-21.0	E-40.0	C-22.4	F-53.5	C-22.4	F-53.5
	Southbound	A-9.5	B-10.0	B-10.1	B-11.0	B-10.4	B-11.6	B-10.4	B-11.6

The TIA indicated that the stop-controlled northbound approach is expected to experience delay increases and LOS degradation under the Build-out conditions. However, the maximum queue lengths are expected to exceed four or five vehicles, and traffic operations could experience improvement once Wilson Road is extended to connect to the connector road that intersects Mebane Oaks Road opposite Walmart Driveway. On the other hand, a westbound left-turn lane is considered and recommended based on the coordination with NCDOT:

- › Provide a westbound left turn lane on Forest Oaks Road with minimal storage and taper [as requested by NCDOT]. This improvement could be provided by restriping the existing pavement on Forest Oaks Lane to provide storage for 1-2 vehicles.

Forest Oaks Lane and Site Drive 1 (unsignalized)

ID	Intersection and Approach	2023 Existing		2024 No-Build		2024 Build		2024 Build w/ Imp	
		AM	PM	AM	PM	AM	PM	AM	PM
4	Site Drive 1 & Forest Oaks Lane	-	-	-	-	N/A	N/A	N/A	N/A
	Northbound	---	---	---	---	A-8.8	A-9.3	A-8.8	A-9.3

The TIA indicated that the stop-controlled Site Drive 1 is expected to operate at LOS A during both the AM and PM peak hours under the Build-out conditions. Due to intersection spacing concerns, permitting of a full movement driveway at this location is subject to NCDOT review and approval. Nevertheless, the following improvements were recommended in the TIA to be constructed with the proposed development:

- › Construct Site Drive 1 with one ingress lane and one egress lane striped as a shared left-right turn lane operating under stop-control.

Forest Oaks Lane and Site Drive 2 (unsignalized)

ID	Intersection and Approach	2023 Existing		2024 No-Build		2024 Build		2024 Build w/ Imp	
		AM	PM	AM	PM	AM	PM	AM	PM
5	Site Drive 2 & Forest Oaks Lane	-	-	-	-	N/A	N/A	N/A	N/A
	Northbound	---	---	---	---	A-8.7	A-9.0	A-8.7	A-9.0

The TIA indicated that the stop-controlled Site Drive 2 is expected to operate at LOS A during both the AM and PM peak hours under the Build-out conditions. The following improvements were recommended in the TIA to be constructed with the proposed development:

- › Construct Site Drive 2 with one ingress lane and one egress lane striped as a shared left-right turn lane operating under stop-control.



AGENDA ITEM #6H

Preliminary Resolution in Support of Financing for Lake Michael Dam Spillway Project

Meeting Date

July 1, 2024

Presenter

Daphna Schwartz, Finance Director

Public Hearing

Yes No

Summary

To hold a public hearing and then consider a preliminary resolution in support of the planned financing for the Lake Michael Dam spillway project.

Background

The City has worked for several years to develop a plan to renovate and improve the spillway for the dam at Lake Michael Park, and those plans are coming to fruition. The City received construction bids on the project in mid-April, and the construction bids received will allow the project to proceed as budgeted. The budget includes City financing in an amount estimated as up to \$7,660,000. There will be a separate discussion at the July 1 meeting about the updated project budget and the construction bids and proposed contracts.

Tonight's requested action is the first formal action required of the Council for project financing.

The City plans to finance the spillway project through an installment financing, as provided under State law. In an installment financing, the City's repayment obligation is secured by a mortgage-type interest in all or part of the property being acquired or improved, but not by any pledge of the City's taxing power or any specific revenue stream. In this case, the Lake Michael Park property, including the dam and spillway, will serve as the collateral. The City frequently uses the installment financing tool on other projects.

The laws for installment financing require that the Council hold a public hearing. The City published notice of tonight's hearing as required by law. After the public hearing, we move to the consideration of the offered resolution.

The North Carolina Local Government Commission must approve the City's financing plan. The LGC is a division of the State Treasurer's office that oversees substantially all local government borrowings. The LGC requires, as part of its application process, that the City Council make certain "findings of fact" that the LGC will rely on its for its approval. These findings include, for example, the Council's determination that project is necessary and appropriate for the City and that the costs will be reasonable. City staff has been in contact with the LGC staff and expects routine approval at the LGC's August 6 meeting.

This resolution, then, (a) makes a preliminary resolution to proceed with the financing, (b) makes the LGC's required findings of fact, and (c) authorizes staff to move forward with the financing process.

In addition, this resolution makes a preliminary decision to proceed with 20-year project financing from Webster Bank. The City staff, in collaboration with the City's financial adviser, Davenport & Co. LLC, solicited financing proposals from a number of banks and other financial institutions. There is a short memorandum

from Davenport with this agenda item outlining the process and the analysis leading to the recommendation of Webster's proposal.

If the Council approves the resolution proposed for tonight, the Council will be asked at its August 5 meeting to approve substantially final financing documents and otherwise authorize staff to move forward with the loan closing. Staff expects that the loan will close by mid- to late May.

Representatives from Davenport and from Sanford Holshouser LLP, the City's bond counsel, are expected to attend the July 1 meeting to be available to answer any questions.

Financial Impact

The financing terms from Webster Bank are 20 years at 4.44% interest.

Recommendation

That the Council conduct the required public hearing and then adopt the preliminary resolution in support for the financing in the form presented.

Suggested Motion

I move that the Council adopt the preliminary resolution in support of the Lake Michael Dam spillway financing in the form presented.

Attachments

1. Preliminary resolution in support of Lake Michael Dam spillway financing



Preliminary Resolution in Support of Lake Michael Dam Spillway Financing

Introduction --

The City Council of the City of Mebane has previously determined to carry out a project to acquire and construct improvements to the Lake Michael Dam spillway.

The Council has also made a preliminary determination to finance this project through an installment financing, as authorized under Section 160A-20 of the North Carolina General Statutes. In an installment financing, the City's repayment obligation is secured by a mortgage-type interest in all or part of the property being financed, but not by any pledge of the City's taxing power or any specific revenue stream. In this case, the City expects that the Lake Michael Park property will serve as the collateral.

State law requires that the City's financing be approved by the North Carolina Local Government Commission, a division of the North Carolina State Treasurer's office. Under the LGC's guidelines, this governing body must make certain findings of fact to support the City's application for the LGC's approval of the City's financing arrangements.

1. The City of Mebane City Council RESOLVES, as follows:

The City makes a preliminary determination to finance approximately \$7,660,000 to pay project costs.

The City has solicited proposals from banks and other financial institutions to provide the financing. City staff recommends, and the Council approves, a proposal from Webster Bank to provide 20-year financing for the project. The final details of

the financing, and the financing documents, are subject to this Council's further approval at a later meeting.

The final terms of the financing are also subject to the LGC's approval. Some of the financing proceeds may represent reimbursement to the City for prior expenditures on project costs, and the City may also use additional financing proceeds to pay financing costs or project costs as necessary.

2. The Council makes the following findings of fact in support of the City's application to the LGC:

(a) The proposed project is necessary and appropriate for the City under all the circumstances.

(b) The proposed installment financing is preferable to a bond issue for the same purposes. This financing is for a discrete facility and is therefore particularly suitable for installment financing.

The City has no meaningful ability to issue non-voted general obligation bonds for this project. This project will produce no revenues that could be used to support a self-liquidating financing. The City expects that in the current interest rate environment for municipal securities there would be no material difference in the overall financing costs between general obligation bonds and installment financings for this project.

(c) The estimated sums to fall due under the proposed financing contract are adequate and not excessive for the proposed purpose. The City will closely review proposed financing rates against market rates with guidance from the LGC and the City's financial adviser. All amounts financed will reflect either approved contracts, previous actual expenditures, or professional estimates.

(d) As confirmed by the City's Finance Officer, (i) the City's debt management procedures and policies are sound and in compliance with law, and (ii) the City is not in default under any of its debt service obligations.

(e) Given the City's need for the project, the Council believes that the effect on the City's budget and the tax rate from repaying the borrowed money will be

reasonable under all the circumstances. The Council will work to minimize the tax rate impact in a manner consistent with moving forward with the project and addressing the full range of City needs.

(f) The City Attorney is of the opinion that the proposed project is authorized by law and is a purpose for which public funds of the City may be expended pursuant to the Constitution and laws of North Carolina.

3. Additionally, the Council resolves as follows:

(a) The City intends that the adoption of this resolution will be a declaration of the City's official intent to reimburse project expenditures from financing proceeds. The City intends that funds that have been advanced for project costs, or which may be so advanced, from the City's general fund, or any other City fund, may be reimbursed from the financing proceeds.

(b) The Council directs the City Manager and the Finance Officer to take all appropriate steps toward the completion of the financing, including completing an application to the LGC for its approval of the proposed financing. The Council ratifies all prior actions of City representatives in this regard.

(c) This resolution takes effect immediately.

I certify as follows: that the foregoing resolution was properly adopted at a meeting of the City Council of the City of Mebane, North Carolina; that this meeting was properly called and held on July 1, 2024; that a quorum was present and acting throughout this meeting; and that this resolution has not been modified or amended, and remains in full effect as of today.

Dated this _____ day of July, 2024.

[SEAL]

Stephanie Shaw
City Clerk
City of Mebane, North Carolina



AGENDA ITEM #7

Contract Award for Lake Michael Dam Spillway Replacement Project

Presenter

Franz Holt, City Engineer
Daphna Schwartz, Finance Director

Public Hearing

Yes No

Summary

The City of Mebane received five (5) bids on June 6th, 2024, ranging from \$6,075,000 to \$8,168,625 for the Lake Michael Dam spillway replacement project. Thalle Construction has been identified as the low qualified bidder. For Council consideration is a tentative contract award in the negotiated amount of \$6,025,000 for the improvements. Attached is Schnabel Engineering's recommendation letter of contract award with certified bid tabulation.

Background

Schnabel Engineering completed a previous assessment of the condition and hydraulic capacity of the Lake Michael Dam and Spillway. Recommendations included making repairs to the intake tower, installation of a toe drain below the dam, and full replacement of the concrete spillway due to multiple structural deficiencies and the presence of voids beneath the chute and spillway slab. Final design, permitting, and bidding have since been completed for the project. The city is under contract with Schnabel Engineering to oversee and inspect the construction of the improvements for an anticipated 12 month construction period.

Financial Impact

An amended capital project ordinance is attached appropriating funding in the amount of \$7,559,500 which includes all engineering services and permitting fees, construction, administration, and a 5% construction contingency.

Recommendation

Staff recommends the City Council make tentative contract award in the amount of \$6,025,000 to Thalle Construction pending financing approval by the Local Government Commission and approving a Capital Project Budget Ordinance in the amount of \$7,559,500.

Suggested Motion

Move to make tentative contract award in the amount of \$6,025,000 to Thalle Construction pending financing approval by the Local Government Commission and approving a Capital Project Budget Ordinance in the amount of \$7,559,500.

Attachments

1. Recommendation of Contract Award Letter with Certified Bid Tabulation.
2. Capital Project Ordinance

TABULATION OF BIDS

City of Mebane

Project Title: Lake Michael Dam Spillway Replacement Project

Bid Time & Date: 2:00 PM, Thursday, June 6th, 2024

Location: Glendel Stephenson Municipal Building Council Chambers

Bids Opened By: Corey Schaal, PE

Witnessed By: Franz Holt, PE

Schnabel Project No. 20C21015.020

CONTRACTOR	N.C. LICENSE NO.	BID SECURITY	E-VERIFY	CQS	MBE/WBE (%)	ADD #1	ADD #2	ADD #3	ADD #4	TOTAL BASE BID
Thalle Construction Company, Inc.	35203	Y	Y	Y	2.1%	Y	Y	Y	Y	\$6,075,000.00
Sequoia Services, LLC	77760	Y	Y	Y	10.1%	Y	Y	Y	Y	\$6,275,160.00
Crowder Construction Company, Inc.	2104	Y	Y	Y	3.8%	Y	Y	Y	Y	\$7,103,541.71
Wright Brothers Construction Company, Inc.	09824	Y	N	Y	10.0%	Y	Y	Y	Y	\$7,252,000.00
Fred Smith Company, LLC	43848	Y	Y	Y	3.9%	Y	Y	Y	Y	\$8,168,625.00

Definitions: CQS = completed qualifications statement, ADD = addendum

THIS IS CERTIFIED TO BE A TRUE COPY OF BIDS RECEIVED



June 17, 2024

Mr. Chris Rollins
City Manager
City of Mebane, NC
106 E. Washington St.
Mebane, NC 27302

**Subject: Construction Contract Award Recommendation
Lake Michael Dam Spillway Replacement Project
Mebane, North Carolina**

Dear Mr. Rollins:

We have tabulated and reviewed the bids submitted on June 6, 2024, for the Lake Michael Dam Spillway Replacement construction project. Bids were submitted by Crowder Construction Company, Inc., Fred Smith Company, LLC, Sequoia Services, LLC, Thalle Construction Company, Inc., and Wright Brothers Construction Company, Inc. No mathematical or transcription errors were found in the bids. A summary of the total bid prices is included in the table below. Our bid tabulation is included as Attachment 1 to this letter.

Company Name	Bid Price
Crowder Construction Company, Inc.	\$7,103,541.71
Fred Smith Company, LLC	\$8,168,625.00
Sequoia Services, LLC	\$6,275,160.00
Thalle Construction Company, Inc.	\$6,075,000.00
Wright Brothers Construction Company, Inc.	\$7,252,000.00

The pre-bid engineer's opinion of probable construction cost (EOPCC) provided to you via email on January 4, 2024, was \$5,165,340. Additional discussion about the EOPCC is provided in our Final Design Report dated May 26, 2023. The total estimated project cost at that time was \$6,273,467.96, including the EOPCC, engineering fees, and permitting fees (please note that the NCDEQ Dam Safety permit fee is a significant cost and will require payment at the end of the project based on the actual construction cost. The maximum fee is \$50,000. Additional information is provided at the link below¹).

¹ <https://www.deq.nc.gov/about/divisions/energy-mineral-and-land-resources/dam-safety/fees>

City of Mebane
Lake Michael Dam Spillway Replacement Project

There have been significant increases in construction bids over the past several months. Contributing factors include contractor availability; market volatility; supply chain issues; increased costs for fuel, materials, and labor; and other factors related to inflation. Although the apparent low bid submitted by Thalle Construction Company (Thalle) was higher than the EOPCC, we consider this to be a fair bid to construct the project based on the current construction market.

Based on our review of the contents of Thalle’s bid, the bid is complete as required by the Project Manual dated April 29, 2024, including the bid form, bid security, evidence of authority to do business in the State of North Carolina, contractor licensing information, qualifications and supporting data, and schedule. Thalle’s qualifications and supporting data demonstrate that they are qualified to perform this project. Thalle also provided documentation demonstrating good faith efforts to include disadvantaged business enterprises (DBE) by claiming 70 points on the “Good Faith Efforts Form” and proposing to subcontract approximately 2% of the contract value to MBE/WBE firms. Thalle also indicates that they plan to achieve substantial and final completion within the specified project times of 335 calendar days and 365 days, respectively, of Notice to Proceed. Thalle’s indicated earliest available date to begin the project is August 8, 2024.

We have worked with Thalle on multiple successful dam projects, including the Williams Terminal Reservoir Apron Replacement in Durham, North Carolina; the West Fork Eno Reservoir Enlargement in Hillsborough, North Carolina; and the Cooper Lake Dam Rehabilitation in Lake Hill, New York. Summary sheets for each project are provided in Attachment 2. The table below summarizes the project dates, bid prices, and final prices, as applicable.

Project Name	Project Dates	Bid Price	Final Price
Williams Terminal Reservoir Apron Replacement	08/2017 to- 06/2018	\$4,192,120	\$3,650,522 (Reduction in Scope)
West Fork Eno Reservoir Enlargement	03/2018 to 08/2019	\$5,080,290	\$5,322,732 (Change Orders)
Cooper Lake Dam Rehabilitation	06/2021 to 07/2024	\$15,824,465	See Note 1

Notes:

1 –Construction is ongoing with an estimated end date in July 2024. The project is currently expected to be completed for the budgeted price.

On June 11, 2024, we had a call with representatives from Thalle to discuss their bid price and the scope of work for the project. Several bid items were discussed during the meeting, and Thalle offered to review their pricing for each item. Thalle has offered the City a \$50,000 dollar reduction for Bid Item 15 – Instrumentation. No other price reductions were identified. The adjusted total bid price is \$6,025,000.00.

Based upon our review of the submitted bid packages, we consider Thalle to be the lowest responsible and qualified bidder. Therefore, we recommend the project be awarded to Thalle.

We have endeavored to prepare this letter in accordance with generally accepted engineering practice and make no warranties, either express or implied, as to the professional advice provided under the terms of our agreement and included in this letter.

City of Mebane
Lake Michael Dam Spillway Replacement Project

We appreciate the opportunity to be of service for this project. Please contact us with any questions regarding this letter.

Sincerely,

SCHNABEL ENGINEERING SOUTH, PC

A handwritten signature in blue ink, appearing to read 'Corey Schaal', is written over the printed name.

Corey Schaal, PE
Project Manager

CRP:CDS:RAS:MEL

Attachments:

- 1) Bid Tabulation
- 2) Project Fly Sheets (Schnabel)



Attachment 1

Schnabel Engineering South, P.C.
11A Oak Branch Drive / Greensboro, NC 27407

T 336.274.9456
schnabel-eng.com

TABULATION OF BIDS

City of Mebane

Project Title: Lake Michael Dam Spillway Replacement Project

Bid Time & Date: 2:00 PM, Thursday, June 6th, 2024

Location: Glendel Stephenson Municipal Building Council Chambers

Bids Opened By: Corey Schaal, PE

Witnessed By: Franz Holt, PE

Schnabel Project No. 20C21015.020

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Crowder Construction Company, Inc.	2104	Y	Y	Y	3.8%	Y	Y	Y	Y	\$7,103,541.71
Wright Brothers Construction Company, Inc.	09824	Y	N	Y	10.0%	Y	Y	Y	Y	\$7,252,000.00
Fred Smith Company, LLC	43848	Y	Y	Y	3.9%	Y	Y	Y	Y	\$8,168,625.00

Definitions: CQS = completed qualifications statement, ADD = addendum

Attachment 2

Williams Terminal Reservoir

DURHAM, NC



SERVICES

Alternatives Analysis
Bathymetric Surveying
Bid Phase Services
Dredging and Apron Replacement Design
Permitting
Resident Engineering Services During Construction
Stability Analysis
Subsurface Exploration
Topographic Surveying

OWNER/CLIENT

City of Durham Department of Water Management

The City of Durham's Williams Terminal Reservoir was built in 1915 as a regulating basin immediately upstream of its water treatment plant. By 2013, accumulated backwash residuals had drastically reduced the storage capacity, decreased water quality, and the original reinforced concrete apron was severely deteriorated.

In order to increase storage capacity and improve water quality, the City contracted Schnabel to develop a dredging program and evaluate reservoir liner options. Prior to dredging, the residuals were sampled and tested the samples using the Toxicity Characteristic Leaching Procedure (TCLP). Schnabel performed a bathymetric survey and prepared a residual thickness map to estimate volumes and target areas for dredging. Schnabel confirmed bathymetric survey data by soundings.

Based on the results, Schnabel evaluated various types of dredging, including hydraulic and mechanical dredging, prior to designing a hydraulic dredging program. Schnabel identified potential disposal sites and assisted with cost estimating for dredging. In preparation for the apron replacement, Schnabel performed a subsurface exploration of the earthen embankment dam, an alternatives analysis for liner replacement options, and performed a stability analysis of the existing embankment dam using the results of the subsurface exploration. Schnabel provided bidding services and construction administration for the dredging and apron replacement. Following the dredging of backwash residuals while the water treatment plant remained online, Schnabel provided construction oversight the concrete apron replacement during a planned outage. Apron replacement included a fiber-reinforced concrete slab on grade, toe wall, rim wall, and protection of a historical wrought iron fence.

Attachment 2

West Fork Eno River Reservoir

CEDAR GROVE, NC



SERVICES

Alternatives Analysis
Computational Fluid Dynamics Model
Construction Contract Administration
Emergency Action Plan
Filter Design
O&M Manual
Reservoir Expansion Planning and Design
Seepage Analyses
Slope Stability
Spillway Design
Subsurface Explorations

OWNER/CLIENT

Town of Hillsborough

AWARDS

West Fork Eno Reservoir Phase 2 Expansion:

- 2023 ACEC National Honor Award
- 2022 NC ACEC Engineering Excellence Honor Award

Located eight miles northwest of town, Phase 1 of the West Fork Eno River Reservoir was completed in 2000 and serves as Hillsborough's primary water supply. It was designed to allow future expansion by raising the normal pool elevation by 10 feet. For permitting reasons, it was advantageous for the client to complete the expansion prior to the end of 2018, and Schnabel was retained in 2013 to design spillway modifications in support of this goal.

The original Phase 2 expansion plan was to construct an ogee weir on the original broad-crested weir. However, early during the preliminary engineering phase of the Phase 2 expansion, several issues were identified that made the plan by the original designers problematic. To obtain data critical to design decisions, Schnabel developed a 3D computational fluid dynamics (CFD) model. The CFD model, which estimated spillway performance under various flood conditions, helped us to determine chute wall heights, identified zones of high hydraulic pressures and turbulent spillway flows, and informed the evaluation of spillway alternatives for the control section.

The alternatives analysis considered labyrinth, ogee, and piano key (PK) weirs. The labyrinth was eliminated due to size constraints. Both the ogee and the PK weirs were viable, but the more compact PK weir was selected because it allowed the control section to be narrowed by about 45 percent while still passing the spillway design flood. Other modifications included revising the control section layout for stability and adequate cutoff; increasing the chute slab thickness; raising the height of portions of the chute sidewalls; and a filter diaphragm around the existing concrete box culvert to prevent internal erosion.

Upon substantial completion, this PK weir was only the second such spillway structure ever constructed in the US, following another Schnabel project in Georgia. During construction, Schnabel staff provided full-time oversight and contract administration services, allowing construction challenges to be solved quickly and the project to be completed on time.

Attachment 2

Cooper Lake Dam and West Dike Rehabilitation

WOODSTOCK, NY



SERVICES

- Alternatives Analysis
- Dam Raise
- Dam Rehabilitation Design
- Drop Inlet Spillway
- Energy dissipation structure
- Geotechnical Explorations
- Hydrologic and Hydraulic Modeling
- New Water Supply Tower and Outlet Works
- Outlet Works Investigations
- Peer Review
- Permitting
- Seepage and Stability Analyses
- Spillway Capacity Assessment
- Support of Excavations and Cofferdam Design

OWNER

City of Kingston

CLIENT

Kingston Water Department

AWARDS

NY State American Water Works Association,
2024 Project of the Year

Cooper Lake Dam is an earthen embankment dam 460 feet long and 45 feet high. The dam impounds a 3,700 acre-foot reservoir, and is the primary water supply source for the City of Kingston in New York state. Schnabel and our subconsultant (CDM Smith) have been working with the city of Kingston and the Kingston Water Department to develop a comprehensive rehabilitation design to construct operational and dam safety improvements to the dam and its appurtenant structures. This included evaluation of alternatives to address spillway capacity, embankment slope stability, and inoperable water supply and outlet works system components, as well as an underwater investigation of the existing raw water intake and low-level outlet.

The improvements will facilitate compliance with New York State regulatory requirements for achieving spillway capacity and stability requirements, as well as long-term water supply planning elements including a new water supply intake tower and a dam raising for future additional water supply storage. A system safe yield model was developed and utilized to support design and construction decisions.

As part of the design development, Schnabel has worked with the owner to develop a comprehensive project risk management plan. This included development of a baseline project risk register prior to detailed design development. The objective was to identify, evaluate, assess, prioritize, and plan responses for potential project risks. This included project life cycle risks from initial permitting and alternatives evaluation; through design development and construction; and ultimately future operations and maintenance. The baseline project risk register was updated during key milestones of the project development.

**Capital Project Ordinance for the City of Mebane
Lake Michael Dam Spillway Replacement Project
Amendment One**

BE IT ORDAINED by the Governing Board of the City of Mebane, North Carolina that, pursuant to Section 13.2 of Chapter 159 of the General Statutes of North Carolina, the following capital project ordinance is hereby adopted:

Section 1: The project authorized is the design and construction of the Lake Michael Dam Spillway Replacement to be financed by the City of Mebane General Fund revenue and debt proceeds.

Section 2: The officers of this City are hereby directed to proceed with the capital project within the terms of the budget contained herein.

Section 3: The following amounts are hereby appropriated for the project:

	Project Budget
Design, Engineering, Permitting & Construction Services	\$ 1,108,128
Construction	\$ 6,025,000
Administration	\$ 125,122
Contingency	\$ 301,250
	\$ 7,559,500

Section 4: The following revenues are anticipated to be available to complete the project:

	Project Budget
Transfer from General Fund	\$ 350,000
Installment Debt Proceeds	\$ 7,209,500
	\$ 7,559,500

Section 5: The Finance Officer is hereby directed to maintain within the Capital Project Fund sufficient specific detailed accounting records to satisfy the requirements of the General Statutes of North Carolina.

Section 6: Funds may be advanced from the General Fund for the purpose of making payments as due.

Section 7: The Finance Officer is hereby directed to report, on a quarterly basis, on the financial status of each project element in Section 3.

Section 8: The Budget Officer is directed to include a detailed analysis of past and future costs and revenues on this capital project in every budget submission made to this Board.

Section 9: Copies of this capital project ordinance shall be furnished to the Clerk to the Governing Board and to the Budget Officer and Finance Officer for direction in carrying out this project.

This is the 1st day of July 2024.



AGENDA ITEM #8

Downtown Mebane Social District Proposal Presentation

Meeting Date

July 1, 2024

Presenter

Amanda Slayden
General Manager

Public Hearing

Yes No

Summary

Tanger Outlets Mebane, is presenting a proposal for creating a social district on Tanger Property that conforms with state law. This proposal would allow ABC permittees within the leasable square footage of the Tanger Mebane Outlet center to serve alcoholic beverages to responsible adults 21 years or older for consumption within the district, including on sidewalks between tenant store fronts and in participating businesses.

Background

Tanger Factory Outlet Centers, Inc., (NYSE:SKT), is a publicly-traded REIT headquartered in Greensboro, North Carolina that presently operates and owns, or has an ownership interest in, a portfolio of 33 upscale outlet shopping centers in 22 states coast to coast, totaling approximately 10.2 million square feet leased to over 2,100 stores operated by 375 different brand name companies. More than 150 million shoppers visit Tanger Outlet Centers annually.

In October 2021 and July 2022, the North Carolina General Assembly passed legislation that allowed municipalities to create social districts that adhered to specific requirements. During the last two years, more than 61 communities in the state have adopted ordinances to create these entertainment districts that have supported retail and entertainment destinations and provided additional economic development opportunities for their retail tenants.

At Tanger, we strive to make experiences safe and enjoyable. We are proudly embedded in our communities and aim to create a world that's inclusive and better for all.

Financial Impact

Tanger does not foresee a financial impact to the City. We will be creating a social atmosphere within the center of our facility by installing turf, furniture and monitors. Our marketing team has drawn up an event program that would increase customer dwell time and therefore retail dollars spent.

The media package designed by our Creative Team includes 22x28 entrance signs, floor clings, and container graphics which are of Tanger individual costs.

Recommendation

No action is required.

Suggested Motion

N/A

Attachments

1. Tanger Mebane Social District PowerPoint Presentation
2. Tanger Mebane Social District Management & Maintenance Plan
3. Tanger Mebane Social District Map

Tanger

NC Social
District



Tanger Mebane Property Overview

Tanger Outlets Mebane opened November 2010 and is strategically located between two major DMAs (Raleigh/Durham/Chapel Hill/Cary & Greensboro/Winston Salem/High Point). An exceptionally strong retail lineup and strong performances by old guard brands like Gap, Banana Republic, Coach, Polo and Tommy Hilfiger provide a solid foundation for this center's performance. Footwear, handbags and sportswear drive shopper visits. Additions of Tory Burch, Kate Spade and Vera Bradley have rounded out the accessories category. The merchant mix drives tourist traffic and pulls from diverse, multi-cultural NC communities like Cary and Apex. The I-40/I-85 corridor between the two DMAs continues to explode in growth and the center has ~95,000 daily vehicles pass by on this combined stretch of two interstates.



Permit Requirements

Detailed Map of Social District Boundaries

Ordinance Establishing Social District

Photos/Images of Signs

Social District Management
& Maintenance Plan

Tanger MEBANE



Social District

Alcohol Law Enforcement
336-226-6882

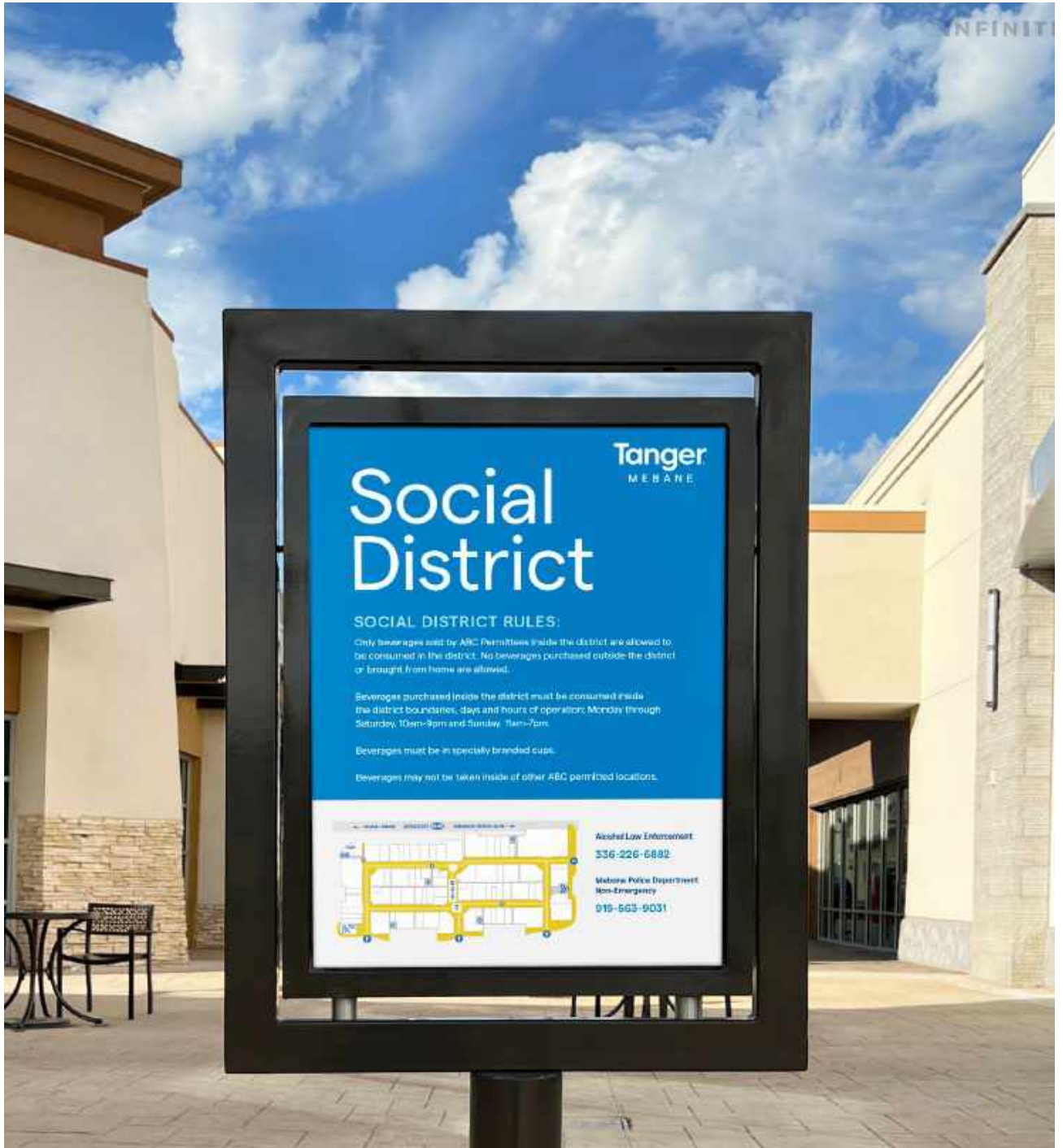
Mebane Police Department
Non-Emergency
919-563-9031

Multi-tenant establishment

(4) Social district. – A defined area in which a person may consume alcoholic beverages sold by a permittee. A social district may include both indoor and outdoor areas of businesses within or contiguous to the defined area during the days and hours set by the local government by ordinance pursuant to subsection (d) of this section. A social district may include privately owned property, including permittees and non-permittee businesses, and multi-tenant establishments, as defined in G.S. 18B-1001.5, and public streets, crosswalks, or parking areas whether or not the streets or parking areas are closed to vehicle traffic.

- a. Two sided 28x28 signs located at each customer entrance identifying Social District boundary
- b. Color vinyl tape will be applied at each sign from store front to store front identifying the edge of the Social District boundary.
- c. Floor clings throughout the Center will identify participating retailer, Social District boundary, and Tanger Code of Conduct – with quick QR access code.





Tanger MEBANE

Social District

SOCIAL DISTRICT RULES:

Only beverages sold by ABC Permits inside the district are allowed to be consumed in the district. No beverages purchased outside the district or brought from home are allowed.

Beverages purchased inside the district must be consumed inside the district boundaries, days and hours of operation: Monday through Saturday, 10am-9pm and Sunday, 11am-7pm.

Beverages must be in specially branded cups.

Beverages may not be taken inside of other ABC permitted locations.



Alcohol Law Enforcement
336-226-6882

Mebane Police Department
Non-Emergency
019-563-9031



No Alcohol Beyond This Point



Tanger Onsite Guidelines within the Common Area:

- District must be clearly defined.

Signage must include the geographic area of the district, days/hours the district is in effect, phone number for police.

- Only ABC Permittees with onsite consumption permits inside the district are able to sell beverages in the district.
- Retail tenant stores are NOT included in the district boundaries. Only shopping Common Area is defined as the social district. Signage will be placed on tenant storefronts indicating beverages are to be discarded prior to entering store.
- Cups must be 16 oz. or less, include the social district logo, name of business where purchased, date/time of purchase, and have “Drink Responsibly – Be 21” printed on them.
- Beverages may NOT leave the designated district boundaries.
- No outside alcohol allowed on Tanger Property per already established Code of Conduct.

The social district shall be maintained in a manner that protects the health and safety of the general public.

Security

- Contracted 24hr video surveillance through Orion Security
- Security Officer patrol 24 hours
- Robust CCTV and LPR system
- Off Duty Officer budget as needed during events

Housekeeping

- Contracted Housekeeping team during operating hours
- Owned and operated topline cleaning equipment
- Daily Porter
- Keter Environmental waste management program



Social District Management & Maintenance Plan

Public Waste Management:

Waste Management Program: Keter Environmental Services

Contact: Mark Olbrych: molbrych@keteres.com

Facilities Maintenance: Pondsco Facility Services

Contact: Dianna Gandert: Dianna.gandert@pondsco.com

Schedule:

Waste receptacles on dump rotation based on digital psi readings

Housekeeping staff schedule:

Monday through Saturday: 6:00am – 10:00pm

Sunday 9:00am – 8:00pm

FFE: 10 (55gal) exterior trash receptacles

16 (45gal) interior trash receptacles

8 (45 gal) interior recycle receptacles

Security and Public Safety:

Contracted Security: Global Security Corporation

Contact: Curtis Grady: Curtis.grady@globalsecuritycorporation.com

On-site Security Contact: 405-881-8174

Schedule: 24hr 7 days per week – Global Security Officer on post

Mebane Police Department

Contact: Chief of Police: Mitch Mckinney: Mmckinney@mebanepd.com

Tanger Center Management:

Contact: General Manager: Amanda Slayden: amanda.slayden@tanger.com

Management Office: 919-304-1520: Mebanemanagement@tanger.com

Schedule: Monday through Friday: 8:30am – 5:00pm

Center Social District Boundaries within Center common area:

Sidewalk of 100 building between Old Navy Ste.180 and Wayback Burger Ste.100; (ii)

Sidewalk of 200 building between Puma Ste.200 and Gap Ste.290; (iii) Sidewalk of 300

building between Nike Ste.310 and Saks Off 5th Ste.380; (iv) Sidewalk of 400 building

between Tumi and Express Factory; (v) Sidewalk of 500 building between Polo and Tommy

Hilfiger; (vi) Sidewalk of 600 building between Banana Republic and Hanesbrands; (vii)

Sidewalk of exterior entrance between Hanesbrand and Childrens Play Area; (viii) Sidewalk

of exterior entrance between Banana Republic and Tommy Hilfiger; (ix) Sidewalk of exterior

entrance between Polo and Express Factory; and (x) Sidewalk of exterior entrance between

Tumi and Saks Off 5th

68107 Mebane Social District

11x8.5"





AGENDA ITEM #9

City of Mebane Long Range Utility Plan

Presenter

Franz Holt, City Engineer

Public Hearing

Yes No

Summary

Alley, Williams, Carmen, and King, Inc. ("AWCK") has completed its study of water and wastewater needs for the City of Mebane with contributions from engineers with Hazen, McGill, and Mebane staff. This 2024 Long Range Utility Plan may serve as a planning guide for current and future city staff and Councils and is for Council consideration.

Background

In 2016 the Mebane City Council adopted a Long-Range Utility Plan completed by AWCK. The plan reviewed existing water and wastewater facilities to determine their capability to meet projected needs and to provide a guide for future improvements to adequately serve the existing population and future growth. Identified items included the renovation of the WRRF, the construction of a new water tank, the purchase of wastewater capacity in a neighboring entity, and the planned expansion of the WRRF all of which have since been realized or are underway. While these items may have been slightly altered, the start of capacity driven needs were determined and pursued. AWCK has completed a new study of water and wastewater needs with a planning window for improvements to 2050 and beyond. Addressed in the 2024 LRUP are the following items.

1. Expansion of the Graham-Mebane Water Treatment Plant and Lake.
2. Expansion of the Water Resource and Recovery Facility.
3. Water and Wastewater distribution and collection system needs.
4. Service area and future water and wastewater projections.
5. Recommended action items.

Financial Impact

None at this point

Recommendation

Staff recommends Council acceptance of the 2024 Long Range Utility Plan.

Suggested Motion

Move to accept the 2024 Long Range Utility Plan as presented.

Attachments

1. LRUP report

2024 Long Range Utility Plan

City of Mebane, North Carolina



Date: June 24, 2024

Prepared By:



**alley, williams,
carmen & king, Inc.**
ENGINEERING • ARCHITECTURE • SURVEYING





June 24, 2024

Mr. Chris Rollins, City Manager
City of Mebane
106 E Washington St.
Mebane, NC 27302

Re: 2024 Long Range Utility Plan

Dear Mr. Rollins,

Alley, Williams, Carmen, and King, Inc. has completed its study of water and wastewater needs for the City of Mebane as provided in the following Long Range Utility Plan (LRUP). The LRUP includes contributions from engineers with Hazen, McGill, and city staff with a planning window from 2024 to 2050.

Hazen Engineers' work includes a review of the Graham-Mebane water supply (treatment and raw water), and the city's water distribution system needs based on the anticipated future water demand of a growing population and expanded service area.

McGill Engineers have provided the vision for the planned and future expansion of the Water Resource Recovery Facility and related phased discharge permitting.

City staff, management, and Council have provided direction and decisions on items that affect the ability to serve current and future economic development and residential growth.

We believe the new LRUP will offer continued guidance on future planning and decision making and we look forward to reviewing the study with you and the Mebane City Council.

Respectfully,

A handwritten signature in black ink that reads "Franz Holt".

Franz Holt, P.E.

Mebane City Engineer

President – AWCK, Inc.

Contents

1. Executive Summary	4
2. Introduction	8
3. Water	9
4. Wastewater	15
5. Service Area	19
6. Water Demand Projections	20
7. Wastewater Flow Projections	21
8. Summary and Recommended Action Items	24
9. Appendices	25
Exhibit A - Service Area (AWCK)	
Exhibit B - 10-year plus CIP for Sewer (AWCK)	
Exhibit C - 10-year plus CIP for Water (AWCK)	
Exhibit D - Boosted Pressure Zone (AWCK)	
Exhibit E - Overall Wastewater (AWCK)	
Exhibit F - Overall Water (AWCK)	
Exhibit G - Graham-Mebane Water Supply 2023 LWSP June 4, 2024 (Hazen)	
Exhibit H - 2023-24 Safe Yield Modeling (Hazen)	
Exhibit I - Mebane Visioning Letter (McGill)	
Exhibit J - Overall Site Plan for WRRF expansion (McGill)	

1. Executive Summary

The 2024 Long Range Utility Plan is a study of the City of Mebane's current and future water and sewer infrastructure needs. The planning of these needs considers:

- Growth within existing service boundaries and an expanded service area.
- Meeting new regulatory requirements.
- Rehabilitating, replacing, and eliminating aging components to the system.
- Providing system reliability to existing service areas.

WATER NEEDS

Mebane's water needs are met daily from the Graham-Mebane Water Plant and Lake and through its water distribution system. The following addresses the current and future needs of each.

A. Graham-Mebane Water Treatment Plant expansion:

Hazen Engineers have modeled the system and determined improvements needed based on projected demands from the 2023 local water supply plans of Graham and Mebane. Hazen recommends starting expansion planning in 2026 and bringing new capacity online in 2036. However, reducing peaking factors through water conservation measures in mini drought years could defer expansion planning to 2031 and new online capacity to 2043.

Additionally, Hazen has reviewed the hydraulic feasibility of buying water from the City of Burlington (a regional water provider). The City of Graham currently buys water from Burlington through two emergency connections. According to Hazen, buying water from Burlington (as needed) appears to be a hydraulically feasible alternative to online plant expansion in 2036 or 2043 and should be studied further.

B. Graham-Mebane Lake (raw water supply expansion):

A new safe yield study has been completed by Hazen (included in the appendices). They determined a 50-year safe yield withdrawal from the lake at 9.4 MGD. Based on future water demands of Mebane and Graham raw water supply planning should start in 2041 (80% of safe yield) with added online supply needed by 2055. Based on initial review by AWCK, expanding the raw water

supply appears to be feasible. Additionally, alternatively buying water from Burlington could delay the need for raw water supply expansion beyond 2070.

- C. *Water Storage:* A new Mebane 1 million gallon (MG) elevated water storage tank is currently under construction and anticipated to be operational in 2025. Once online Mebane's total water storage will be 4.3 MG with the 3.0 MG Clearwell storage at the WTP and 0.3 MG elevated water storage tank at 11th Street. This total storage exceeds the NCDEQ- Public Water Supply half day demand storage requirements to an expected future demand beyond 2050.
- D. *Water Distribution System:* Additional transmission water main improvements have been identified by Hazen (described further in the report). The need for these improvements is based on future maximum day demand increases. The 10-year capital improvements plan includes various 12-inch water extensions to increase system reliability with the completion of looped mains. The plan also includes line rehabilitation of older cast iron mains, and the elimination of galvanized small water mains with new larger ductile iron pipe water mains. In addition, the city will need to replace water service piping containing lead (current study is underway to determine these services).
- E. *Boosted Pressure Zone:* Mebane currently operates as one water pressure zone controlled by the tank overflow elevation of 840 feet and its related operational range. Higher ground elevations in the eastern service area will require boosted water pressure creating a new pressure zone generally just north, south, and east of the Buckhorn Interchange. Booster pump stations will supply desired domestic pressures and eventually fill a future 1.0 MG elevated water storage tank with an approximate overflow elevation of 880 feet.
- F. *Extension of Water Distribution System:* New service areas will require the extension of 12-inch water mains along NCDOT roads that are not dead ends. Mebane's water extension policy addresses extending service to existing developed areas not currently served, proposed new development, and economic and community development. Water system development fees will be used to aid in funding capital projects that add new capacity to the system including the oversizing of water lines per Mebane's policy.

WASTEWATER NEEDS

Mebane's wastewater needs are met daily from the Water Resource and Recovery Facility (WRRF), the City of Graham's WWTP (Mebane's purchased allocation), and through its collection and pumping system. The following addresses the current and future needs of each.

- A. *Mebane's Water Resource Recovery Facility (WRRF)*: McGill Engineers have completed the design and permitting of a 1.5 MGD expansion/upgrade of the WRRF with a new treatment capacity to 4.0 MGD from 2.5 MGD. The new plant, expected to be in service in 2026, is designed to meet nutrient (nitrogen and phosphorus) limits of the future Jordan Lake Rules and can be expanded to a future capacity of 6.0 MGD. The WRRF expansion/upgrade to 4.0 MGD with the Graham WWTP allocation of 0.75 MGD should meet the wastewater treatment needs post 2050 (dependent on rate of growth).
- B. *Wastewater Pump Stations/Force Mains/Gravity Collection Lines*: To meet future system needs, it is expected that the city will complete projects that address wastewater pump station upgrades, the elimination of pump stations, and reroutes of wastewater flows. The 10-year Capital Improvement Plan (CIP) projects are further described in the report.
- C. *Extension of wastewater system*: New service areas will require extension of gravity lines, new pump stations and related force mains. Mebane's wastewater extension policy addresses extending service to existing developed areas not currently served, proposed new development, and economic and community development. Wastewater system development fees will be used to aid in the funding of capital projects that add new capacity to the system including oversizing of waterlines per Mebane's policy.

SERVICE AREA

The future service area has been expanded to approximately 51.2 square miles due to interest being shown for Mebane water and sewer service beyond the current boundaries. In general, the existing service area abuts future limits with the Town of Haw River, City of Graham, Town of Swepsonville, and the Graham-Mebane Lake to the west and Buckhorn Road I-40/85 Interchange to the east. Mebane has seen an increase in growth and interest in service eastward (north and south) which is captured with the expanded service area.

WATER DEMAND & WASTEWATER FLOW PROJECTIONS

Future water demand is based on the current demand and anticipated growth (residential and non-residential) of both Mebane and Graham. Graham also sells water to the Town of Green Level and the Town of Swepsonville. It is expected that by 2050 the average daily treated water pumped to Mebane will be 4.0 MGD and 4.0 MGD to Graham totaling 8.0 MGD.

Future wastewaters use projections are based on current use and anticipated growth with a high demand from residential development. Mebane has also seen a resurgence in industrial growth. The new industrial users to date are mostly distribution and warehousing using less water. Commercial growth is also expected to follow the residential growth. In addition, Mebane is the provider of wastewater to the unincorporated Efland Community.

When making future wastewater projections we have assigned an equivalent residential unit (ERU) at 215 gallons per day (gpd). This assigned unit flow is then used as a multiplier for non-residential use. With an anticipated population of 48,200 by 2050 we expect an additional 10,833 ERUs generating wastewater flows up to 4.0 MGD to the Mebane WRRF and Graham WWTP.

SUMMARY AND RECOMMENDED ACTION ITEMS

The City of Mebane is addressing their primary wastewater needs with the expansion of the WRRF to 4.0 MGD. This WRRF expansion with the previous purchase of Graham allocation of 0.75 MGD will serve Mebane post 2050.

The City of Graham is currently studying how the WTP can be expanded to address future demand. In addition, studies have begun for the possible expansion of the Lake. As an alternative to expanding the treatment plant and raw water supply, we also recommend continued study of the possible purchase of Burlington water. Others purchasing water from Burlington include the City of Greensboro, the Towns of Whitsett, Gibsonville, Elon, Ossipee, Haw River, Village of Alamance, and Orange-Alamance Water System, Inc.. The City of Graham also purchases water from Burlington on an emergency basis. While infrastructure is in place through two emergency connections, additional improvements will be required in Graham's distribution system to provide daily water purchases from Burlington. Buying water from Burlington may defer the need for expansion of the WTP and Lake for decades.

As water and sewer funds are limited, we recommend a ranking of capital improvement projects advancing those that are most critical to Mebane. Water and sewer rates should continue to be reviewed annually and system development fees analyzed every 3 to 5 years. Mebane and Graham should continue applying for grants that assist with capacity needs, infrastructure analysis, and regulatory review.

In summary, Mebane is in an advantageous position to address their future water and wastewater needs with previous planning and actions taken by Graham and Mebane City Councils.

2. Introduction

In 2016, the City of Mebane (Mebane) completed a study to evaluate near and long-term capital needs of the water distribution system and sewer collection and pumping systems and water/sewer treatment facilities for a growing population by the year 2035. Items that have been realized since adoption are as follows:

- Acquired 0.75 MGD wastewater allocation in the Graham Wastewater Treatment Plant (WWTP).
- Adoption of System Development Fees with updates in 2021 and 2024.
- Byrd's Pump Station (PS) replacement and Farrar Lane PS upgrade/reroute.
- Acceptance of Orange County wastewater improvements and Efland flow.
- Adoption of an Accumulated Paper Flow Policy.
- Renovation of the Water Resource Recovery Facility (WRRF).
- Replaced and rehabilitated water and sewer mains.
- Received new discharge permit for WRRF expansions to 4.0 and 6.0 MGD.
- Construction of a 1 million gallon (MG) elevated water storage tank online 2025.
- Completed the Design/Permitting of the WRRF expansion/upgrade.
- Completed a new safe yield study of the Graham-Mebane Lake.

This new 2024 study addresses water and wastewater needs that will serve Mebane's residential and non-residential growth to 2050 and beyond. Items addressed in this report are as follows:

- Graham-Mebane Water Supply and Treatment.
- Water Distribution and Pumping System.

- Boosted Water Pressure Zone.
- Water Resource Recovery Facility.
- Wastewater Collection and Pumping System.
- Service Area.
- Water Demand Projections.
- Wastewater Flow Projections.
- Extension of the Water and Wastewater Systems.

3. Water

A. Graham-Mebane Water Treatment Plant

Existing Treatment Capacity and Current Water Use - Mebane has 50% ownership in the Graham-Mebane Water Treatment Plant (WTP) located on US Hwy. 70 between east of Haw River and west of Mebane (see Figure 1). The permitted capacity is 12 million gallons per day (MGD) with each city having 6.0 MGD available to serve the respective water demand. The City of Graham (Graham) operates the WTP and is the main water provider to the Town of Green Level, Town of Swepsonville, and City of Mebane.

Last year an average of 5.0 MGD was withdrawn from the lake with a maximum day of 6.2 MGD. Mebane's water demand averaged 2.1 MGD with a maximum day demand of 2.7 MGD.

Future Treatment Capacity Needs - Based on the projected rate of growth from the 2023 Local Water Supply Plans of Mebane and Graham, planning should start in 2026 for an expansion of the WTP to bring new capacity online by 2036.

Deferring expansion to later years (2031 and 2043) can be achieved by reducing peak use (see Hazen slides in appendix). Peak demand historically reaches 186% of average daily use in mini draught years. As future water demand increases the goal would be to reduce the peak use to 160% of the average daily use through water conservation measures. Other cities have adopted water conservation measures that reduce peak use to 1.5 times average daily use.

Future plant expansion could possibly be delayed further with the purchase of water from the City of Burlington (Burlington). This action could defer the planning and bring new online capacity by 20 years (2044 and 2056).

Other Capital needs (10 year) - Capital needs at WTP include rehabbing the clear well storage and disc filters as well as other identified items.

Future Regulatory Requirements and Study - The EPA has finalized drinking water standards for Polyfluoroalkyl Substances (PFAS) contaminants with maximum contaminant levels (MCLs). The City of Graham has received grant funds for a PFAS study. Graham has also started studies on WTP expansion, filter backwashing, and expansion of the lake.



Figure 1. Graham-Mebane Water Treatment Plant 12.0 MGD

B. Graham-Mebane Lake

Existing Water Supply and Safe Yield - The Graham-Mebane Lake is a WS-II protected water supply watershed on Back Creek. The drainage area of the reservoir is 66 square miles. Graham and Mebane recently completed a new safe yield study of the reservoir for a major draught (50-year). The usable storage at full pool is approximately 2.5 billion gallons. The 50-year safe yield is 9.4 MGD as determined by Hazen.

Future Water Supply Needs – Hazen Engineers project that by 2055 water demand will reach or exceed the 50-year safe yield of 9.4 MGD. Mebane and Graham should start planning for added raw water supply storage (Graham-Mebane Lake) by 2041. The ability to expand Graham-Mebane Lake appears to be feasible based on initial review by AWCK.

Alternatively, Mebane and Graham buying 1.5 MGD of water from Burlington in 2041 (once 80% of 9.4 MGD safe yield is reached) may defer the need for added water supply storage at the Graham-Mebane Lake to 2061. However, additional purchase to 2.5 MGD would delay the need for more raw water supply post 2070.

C. Water Distribution and Storage

Existing System - Mebane has 137 miles of public water lines ranging in size from 2-inch to 24-inch and pumping capacity at the Graham-Mebane WTP of 5.2 MGD. Additionally, the city has elevated and ground water storage as follows:

- 300,000-gallon elevated storage tank at 11th Street.
- 3,000,000-gallon clear well ground storage at the Graham-Mebane WTP.
- New 1-million-gallon elevated Water Storage Tank (online in 2025, see Figure 2) and connections with other water systems:
 - Graham at the WTP and via Burlington (emergency).
 - Graham at Senator Ralph Scott parkway (with Mebane pressure drop).
 - Orange-Alamance Water System (emergency).



Figure 2. New 1-million-gallon Elevated Water Storage Tank is under construction.

Future System Needs – Improvements to meet maximum day demand and fire flow needs are as follows (see Figure 3):

- 2030 Replace the existing 1800 gpm pump at WTP with a 3,500-gpm pump. *Improvements driven by maximum daily demand needs.*
- 2040 Replace the second existing 1,800 gpm pump at WTP with a 3,500-gpm pump. *Improvements driven by maximum daily demand needs.*
- 2040 Extend 24-inch main along US 70 (Center Street). *Improvements driven by maximum daily demand needs.*
- 2043 Extend 16-inch main (1st to 11th). *Improvements driven by fire flow needs.*
- 2043 Extend 12-inch main (9th to Lebanon with connection to Ashbury via York Road). *Improvements driven by fire flow needs.*

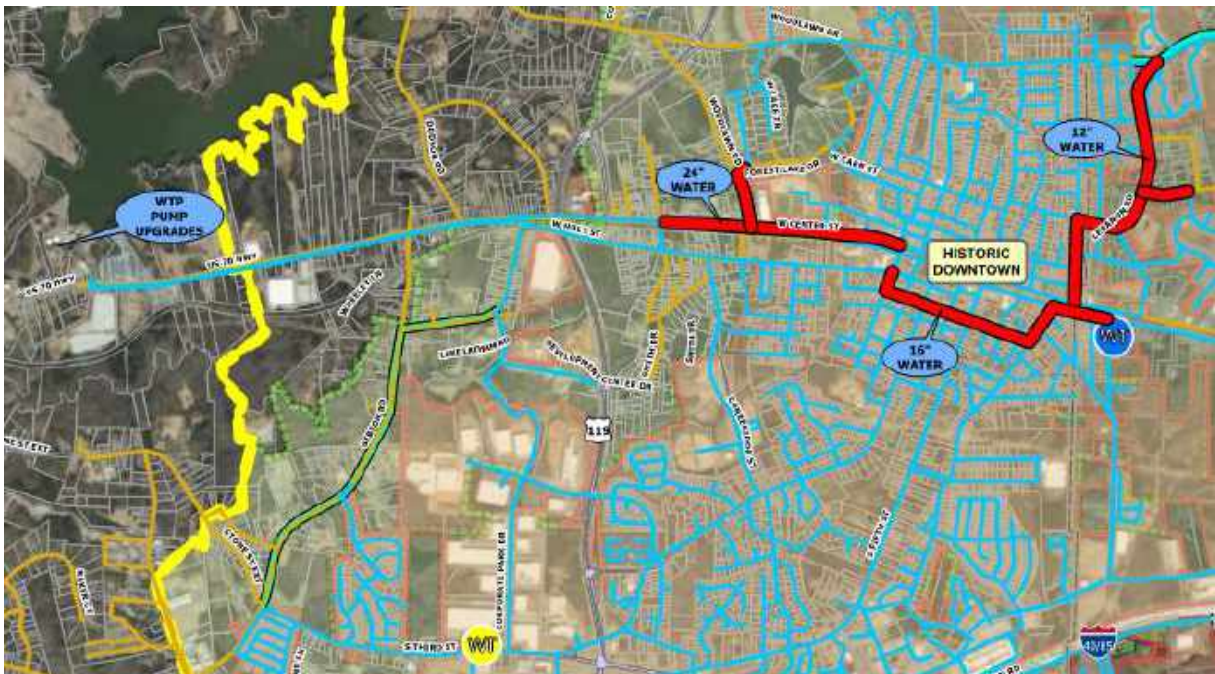


Figure 3. Transmission line and pump requirements to meet future max. day demand.

Mebane’s 10-Year plus Water System Capital Improvement Plan (CIP) includes proposed 12-inch water main extensions to complete loops providing redundancy in domestic and fire flows as follows:

- 12-inch Bowman Road to West Ten Road loop to boost fire flows to the Buckhorn Economic Development Zone.
- 12-inch Gibson Road Lake Latham Road from Holt Street to 3rd Street Ext. (development driven).
- 12-inch Development Center Drive to Holt Street (provides redundancy at NCIC).

City of Mebane
Long Range Utility Plan

- The CIP also includes rehabbing older lines, eliminating galvanized water lines, eliminating service lines containing lead, and continuing participation in line oversizing with development (see Figure 4). These improvements will be public installations as opposed to developer installed.

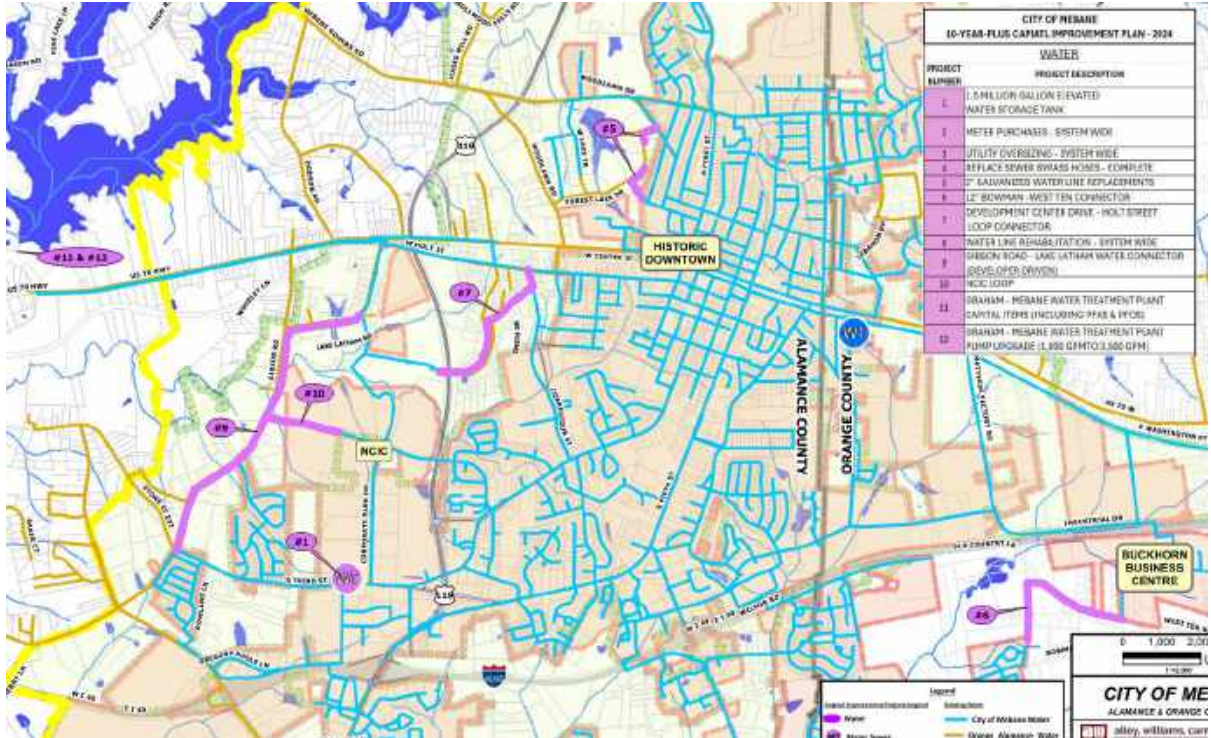


Figure 4. 10-Year Plus CIP Water Improvement Projects.

D. Boosted Pressure Zone

Mebane currently operates as one water pressure zone controlled by the tank overflow elevation of 840 feet. A boosted pressure zone has been identified to serve the higher ground elevations in the Buckhorn Interchange area (north/south/east) which would provide domestic water pressure similarly experienced by most Mebane residents and businesses (see Figure 5).

Residential development may be limited to areas that can be served with adequate domestic pressure and fire flows until the boosted zone is in operation. This could include limiting development to single story homes or if multi-family having an individual pump system boosting water pressure. Industrial Development can continue without a boosted zone as fire flows are adequate with fire pumps in most facilities as well as ground storage at others.

City of Mebane
Long Range Utility Plan

Two booster pump stations with boundary check valves have been identified at or near specific locations. A 1.5 MGD booster pump station near 6800 Washington Street is proposed for the southern area and a 0.8 MGD booster pump station near 6411 Lebanon Road for the northern area. The booster pump stations would be designed to fill a future 1.0-million-gallon post 2050 elevated water storage tank with an approximate overflow elevation of 880 feet. Water transmission main improvements and pump replacements at the WTP are required prior to providing a new boosted pressure zone.

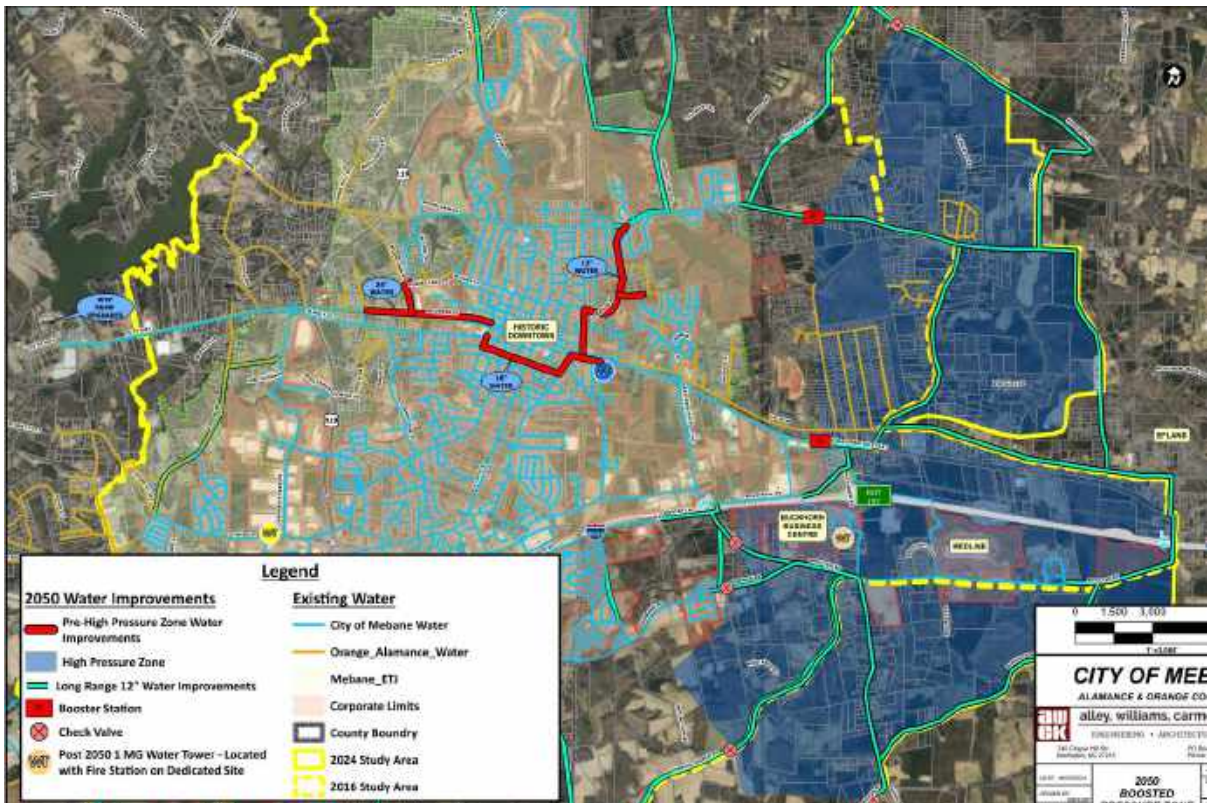


Figure 5. Boosted Pressure Zone.

E. Extensions of Water Distribution System

New service areas will require the extension of mostly 12-inch water mains along state road right-of-way. Mebane’s water extension policy addresses extending service to existing developed areas not currently served, proposed new development, and economic and community development.

Mebane has an oversizing policy that considers possible participation in identified improvements that provide benefit beyond what may be needed for a development (residential or non-residential). Collected water system development fees would be

used to aid in funding capital projects that add new capacity to the system including oversizing of water lines.

4. Wastewater

A. Water Resource Recovery Facility (WRRF)

Existing Treatment Capacity and Current Wastewater Flows - Mebane owns and operates the 2.5 MGD WRRF located on Corregidor Drive. A renovation of the WRRF was completed last year (see Figure 6). Improvements included a new headworks screening process (expanded with new facility), modification of the clarifiers (repurposed with new facility) and the addition of new air and mixers to the aerobic digesters (used with new facility).



Figure 6. Renovated WRRF – Current

Current wastewater flows at the WRRF are approximately 1.75 MGD. The city also owns a 21.4% percentage of the 3.5 MGD Graham WWTP with an allocation of 0.75 MGD. Current wastewater flows to Graham are approximately 50,000 gallons per

City of Mebane
 Long Range Utility Plan

day. Flows at the North Carolina Commerce Park (NCCP) are not counted against the Graham allocation.

Future Treatment and Capacity Needs - McGill Engineers have completed the design and permitting of a 1.5 MGD expansion/upgrade of the WRRF with a new treatment capacity to 4.0 MGD from 2.5 MGD. The new plant is designed to meet nutrient (nitrogen and phosphorus) limits of the Jordan Lake Rules. Additionally, the facility can be expanded to 6.0 MGD. The major components of the new plant (see Figure 7) are as follows:

- Expansion of the renovated headworks.
- New Influent Pump Station.
- New plant generator.
- Two new 5 Stage Bardenpho Oxidation Ditches.
- Two new clarifiers and new Denitrification Filters.
- New UV Disinfection and Post Aeration Basin.
- Conversion of existing 1-million-gallon clarifier to sludge holding.

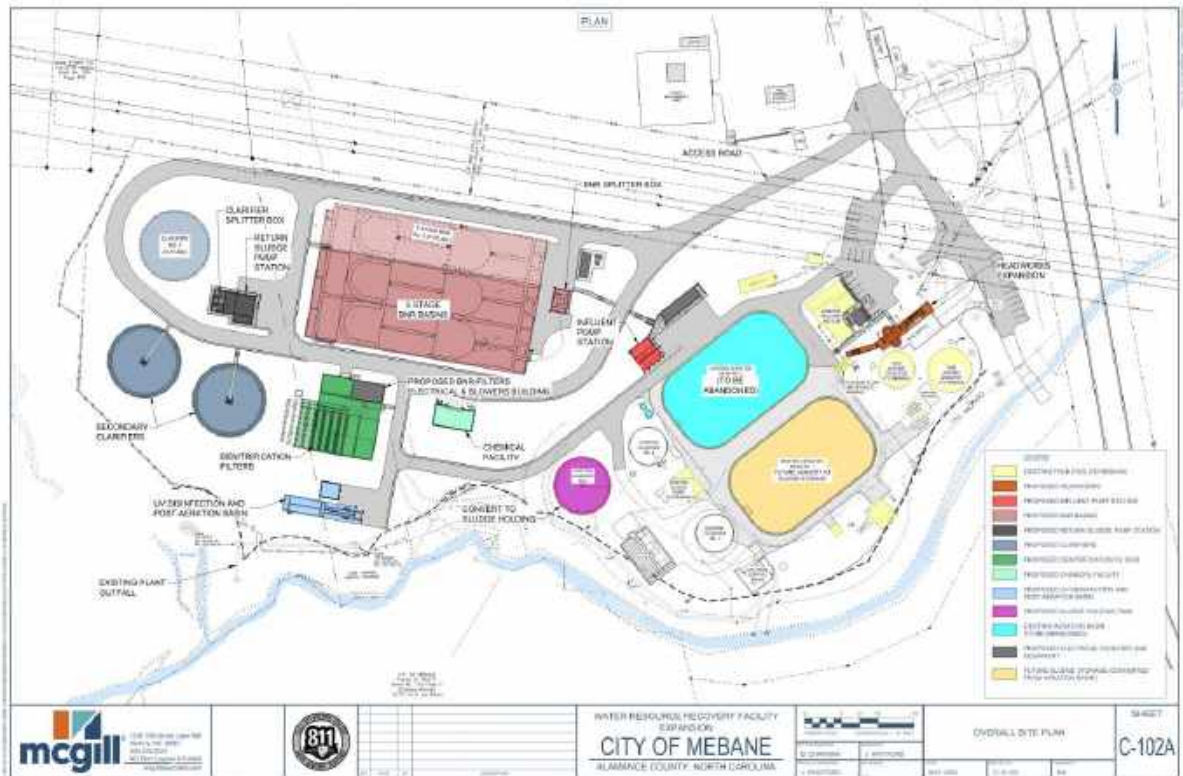


Figure 7. Proposed WRRF Expansion to 4.0 MGD and Future to 6.0 MGD

Bids are expected this August 2024 with construction starting in January 2025 and being completed within 3 years. The WRRF expansion/upgrade to 4.0 MGD with the Graham allocation of 0.75 MGD may provide the wastewater treatment needs until the year 2050 with a forecasted Mebane population of approximately 48,200. The design of the expansion/upgrade to 6.0 MGD should begin at 80% of capacity (3.2 MGD) and be under construction at 90% (3.6 MGD). The 6.0 MGD WRRF and 0.75 MGD Graham allocation should be capable of serving a Mebane population of 61,000 post 2070 (dependent on rate of growth).

Additional Future Needs – Solids handling/Odor Control/Flow Equalization

Solids handling. As future wastewater flow increases, residual solids (sludge) production will also increase. Mebane currently contracts with EMA resources to press and haul sludge. A study should be done to analyze if in-house sludge processing is more economical while continuing to contract hauling and disposing of the sludge.

Odor control. The WRRF renovation project replaced the existing mixing system in the digesters with blowers which has made a significant improvement to the odors that leave the plant site. However, as flow and sludge production increase so does the potential for odors. It may become necessary as the WRRF expands to install odor control facilities over the sludge storage tanks and at the wet wells where wastewater enters the plant. An odor control project could be considered after the WRRF expansion/upgrade is online.

Flow equalization. The purpose of flow equalization is to divert flow into storage basins during high flows and return the flow to the treatment process during low flows. This makes the process run more efficiently creating a better-quality effluent. This can also be used during storm events when flows are exceptionally high to protect the plants' biology. The current planned expansion/upgrade will replace the existing aeration basins which will be left in place and able to be used in an emergency to store high flows. McGill envisioned these basins eventually being used as flow equalization.

B. Wastewater Pump Stations/Force Mains/Gravity Collection Lines

Existing System - Mebane owns and operates a wastewater pumping and collection system varying in size and capacity as follows:

- 21 duplex and triplex wastewater pump stations (50-gpm to 1745-gpm).
- 33 simplex pump stations (individual resident low pressure system).

City of Mebane
Long Range Utility Plan

- 28 miles of force main (3-inch to 16-inch).
- 126 miles of gravity collection lines (8-inch to 24-inch).

Future System Needs - To meet future system needs it is expected that the city will complete projects that address wastewater pump station upgrades, elimination, and reroutes of wastewater flows (see Figure 8). Collected wastewater system development fees will assist in funding projects that add new capacity to the system. These 10-year plus CIP projects are as follows:

- North Regional Triplex PS (add/permit 3rd pump to increase capacity).
- Terrell Street PS (rehab and increase capacity with Arbor Creek PS elimination).
- GKN PS (rehab and increase capacity with reroute to Graham).
- Fieldstone PS (rehab and increase capacity with GKN reroute to Graham).
- GE PS&FM (increase capacity with PS upgrade and force main rehab).
- Richmond Hill PS (rehab).
- Jones Road 10-inch outfall (eliminates Arbor Creek PS).
- Third Street 12-inch outfall (eliminates 3rd Street PS).
- Walmart 10-inch outfall (eliminates Walmart PS).
- Rehabilitation of sewer system in the 3rd Street and 5th Street sewer sheds.

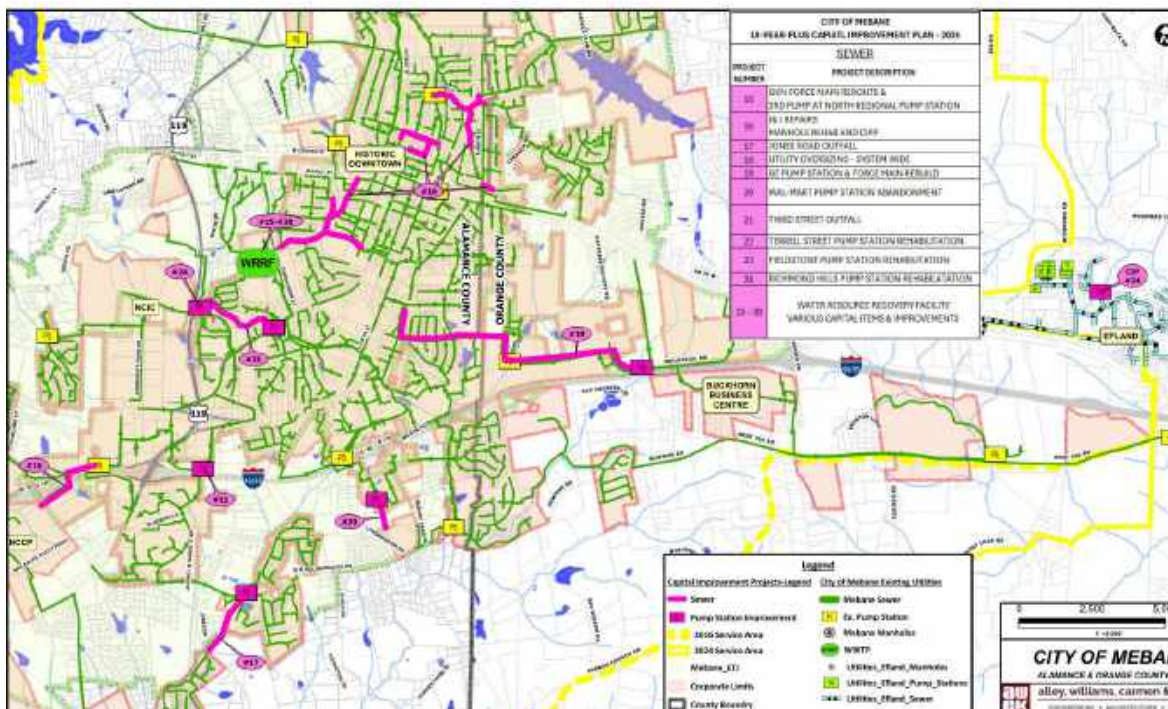


Figure 8. 10-Year Plus CIP Wastewater Improvement Projects.

Future Extensions of Wastewater System - New service areas will require extension of gravity lines, new pump stations and related force mains. Mebane's wastewater extension policy addresses extending service to existing developed areas not currently served, proposed new development, and economic and community development.

5. Service Area

The 2016 service area includes approximately 37.5 square miles of incorporated land, land within the ETJ, and other planned areas of service in Alamance and Orange Counties.

The 2024 expanded service area includes an additional 13.7 square miles where interest has been shown in the area for possible service. The new total service area is approximately 51.2 square miles (see Figure 9).

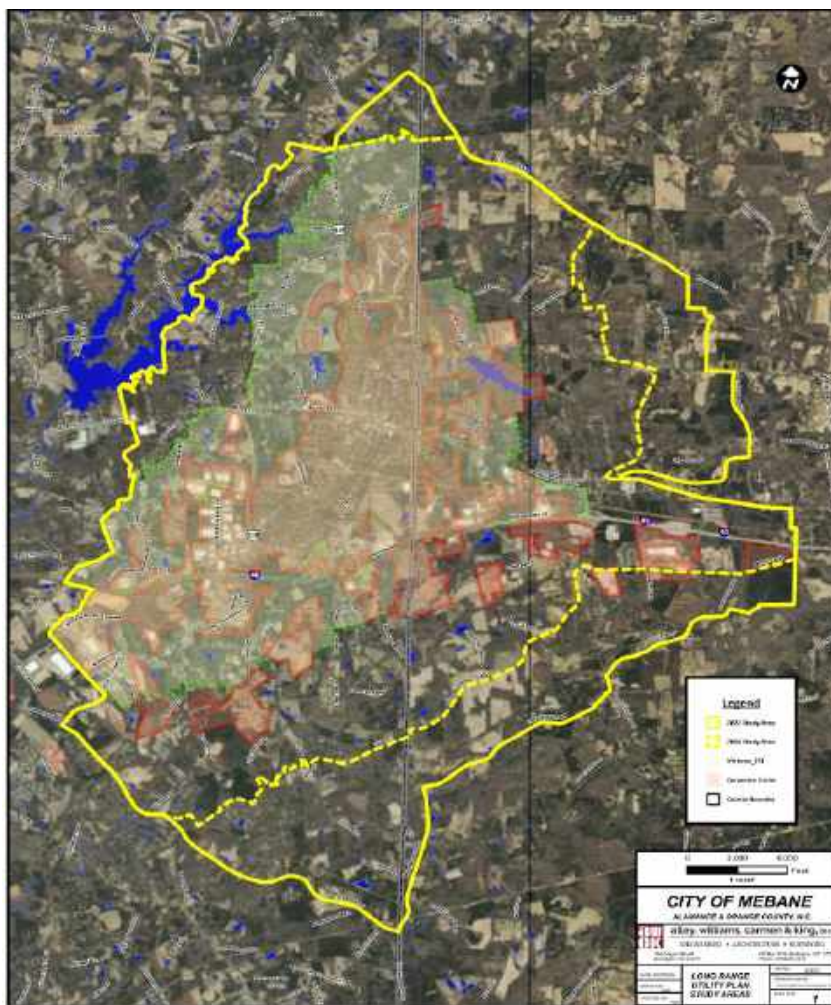


Figure 9. Service Area Map.

6. Water Demand Projections

Future water demand is based on the current demand and anticipated growth (residential and non-residential) of both Mebane and Graham. Graham also sells water to the Town of Green Level and the Town of Swepsonville.

The water demand data below is taken from the most recent Local Water Supply Plan Mebane submitted to the NC Public Water Supply (See Figures 10 & 11). Graham’s totals were adjusted to reflect improved system process and unaccounted for water. As shown below, by 2050 it is expected that 8 MGD will be pumped to Mebane and Graham.

Average Day Water Demand Projections From Mebane’s 2023 Local Water Supply Plan

	2023	2030	2040	2050	2060	2070
Year-Round Population from 2023 LWSP	21,397	30,896	40,164	48,197	55,427	60,969
Residential	0.926	1.355	1.736	2.052	2.325	2.520
Commercial	0.237	0.281	0.366	0.476	0.618	0.804
Industrial	0.384	0.446	0.557	0.697	0.871	1.089
Institutional	0.226	0.153	0.168	0.185	0.204	0.224
System Process	0.012	0.295	0.310	0.325	0.342	0.359
Unaccounted-for	0.284	0.217	0.228	0.239	0.251	0.264
Service Area Demand	2.068	2.747	3.365	3.974	4.611	5.260
Sales (OAWS)	0	0	0	0	0	0
Future Sales	0	0	0	0	0	0
2023 LWSP Average Day - mgd	2.068	2.747	3.365	3.974	4.611	5.260

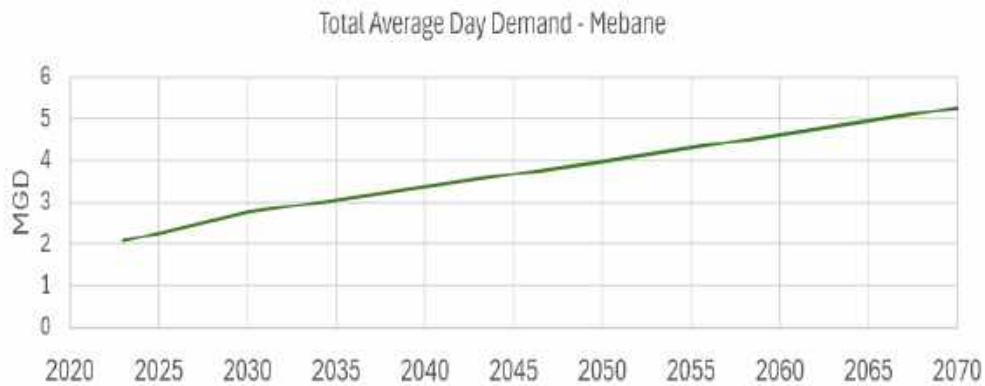


Figure 10. Mebane Water Demand from 2023 Local Water Supply Plan.

Water Summary for Graham, Mebane and WTP

Graham

Water Use by Type	2023	2030	2040	2050	2060	2070
Residential	0.713	0.861	1.076	1.346	1.548	1.702
Commercial	0.385	0.496	0.620	0.776	0.892	0.981
Industrial	0.206	0.303	0.378	0.473	0.544	0.598
Institutional	0.044	0.080	0.100	0.125	0.144	0.158
System Process (Flushing)	0.120	0.132	0.165	0.206	0.237	0.261
Unaccounted-for	0.594	0.330	0.413	0.516	0.594	0.653
Service Area Total	2.062	2.203	2.753	3.442	3.958	4.354
Water Sales						
Burlington	0.002	0.000	0.000	0.000	0.000	0.000
Green Level	0.107	0.365	0.365	0.365	0.365	0.365
Haw River	0.001	0.000	0.000	0.000	0.000	0.000
Orange Alamance	0.000	0.000	0.000	0.000	0.000	0.000
Sweptonville	0.201	0.300	0.300	0.300	0.300	0.300
Total Sales	0.310	0.665	0.665	0.665	0.665	0.665
Total Pumped to Graham System	2.372	2.867	3.417	4.106	4.622	5.018
Total Pumped to Mebane System	2.068	2.747	3.365	3.974	4.611	5.260
Total Finished Water Pumped	4.440	5.614	6.782	8.081	9.233	10.278
WTP Process Water	0.400	0.488	0.590	0.703	0.803	0.894
Total Raw Water Withdrawal	4.840	6.102	7.372	8.783	10.036	11.172

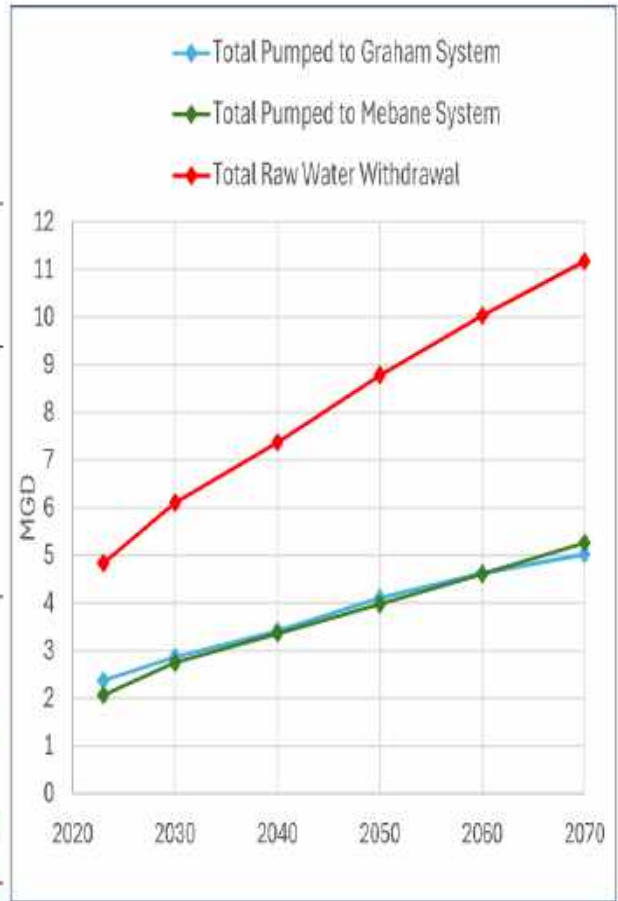


Figure 11. Water Summary for Graham, Mebane and WTP.

7. Wastewater Flow Projections

Future wastewaters flow projections are based on current use and anticipated growth with a high demand from residential development. Mebane has seen a resurgence in industrial growth. The new industrial users to date are mostly distribution and warehousing using less water. Commercial growth is also expected to follow the high residential growth. In addition, Mebane is the provider of wastewater to the unincorporated Efland Community.

City of Mebane
Long Range Utility Plan

As noted previously, the Mebane WRRF is the primary provider of wastewater treatment at 2.5 MGD and is planned to be expanded to 4.0 MGD. Most future wastewater flows will be from continued infill growth around Mebane’s central business area and historic downtown, and to the north with the completion of the 119 by-pass and to the east and southeast along the I-40/85 corridor.

Mebane also has 0.75 MGD allocated in the Graham WWTP which currently serves the NCCCP and Cambridge Park. With the reroute of wastewater from the GKN and Arbor Creek Pump Stations it is expected that the use will rise to approximately 0.25 MGD. This leaves approximately 0.50 MGD for future south Mebane growth.

When making future wastewater projections we have assigned an equivalent residential unit (ERU) at 215 gpd, slightly less than the permitted flow for a 3-bedroom home at 225 gpd. This assigned unit flow is then used as a multiplier for non-residential use. With an anticipated population of 48,200 by 2050 we expect an additional 10,833 ERUs generating wastewater flows within the system as shown below (See Table 1).

MEBANE WRRF		2050	GRAHAM WTP	
<u>TYPE</u>	<u>PROJECTED ERUs</u>		<u>TYPE</u>	<u>PROJECTED ERUs</u>
APPROVED/SUBMITTED PROJECTS	3,471	4,709	APPROVED/SUBMITTED PROJECTS	1,238
SERVING EXISTING HOMES WITH SEPTIC TANKS (10%)	222	285	SERVING EXISTING HOMES WITH SEPTIC TANKS (10%)	63
FUTURE NON-RES. AREA	748	1,027	FUTURE NON-RES. AREA	279
FUTURE RESIDENTIAL AREAS (15%)	4076	4,812	FUTURE RESIDENTIAL AREAS (15%)	736
TOTAL	8,517		TOTAL	2,316
TOTAL		10,833	ERUs	

Table 1. Projected ERUs to Mebane WRRF and Graham WTP.

The ability to serve planned and future ERUs is largely dependent on pump station capacity. As the WRRF is centrally located most wastewater flows are pumped to the facility. Below is a current review of the pump stations and their current utilization percentage to their capacity. Also included below is the current percentage utilization of the WRRF and Graham WWTP to their capacity (See Table 2).

City of Mebane
Long Range Utility Plan

EXISTING FLOW CAPACITY ANALYSIS (2024)				
PUMP STATION	PUMPS TO	DESIGN CAPACITY (GPD)	EXISTING FLOWS (GPD)	CAPACITY %
Fifth Street	WRRF	259,200	5,403	2%
Woodlawn Estates	North Regional	28,800	2,164	8%
North Regional	WRRF	1,005,120	361,358	36%
Brookhollow	West Ten	316,800	30,130	10%
Richmond Hills	West Ten	46,080	5,512	12%
West Ten	Southeast Regional	403,200	49,812	12%
Southeast Regional	WRRF	1,002,240	274,100	27%
Arbor Creek	Terrell Street	144,000	59,551	41%
Terrell Street	Fieldstone	230,400	174,094	76%
Governor's Green	GKN	115,200	37,429	32%
GKN	Fieldstone	187,200	142,675	76%
Fieldstone	WRRF	633,600	445,712	70%
L.J. Rogers	G.E.	115,200	5,924	5%
Gravelly Hill	G.E.	115,200	27,431	24%
G.E.	WRRF	172,800	82,441	48%
Walmart	Farrar Lane	51,840	18,385	35%
Farrar Lane	WRRF	288,000	126,564	44%
Third Street	WRRF	316,800	149,024	47%
Byrd's	WRRF	57,600	3,995	7%
Mebane City Park	WRRF	80,640	1,088	1%
Cambridge Park	City of Graham	288,000	54,715	19%
City of Mebane WRRF		2,500,000	1,750,000	70%
City of Graham WWTP		750,000	54,715	7%

Table 2. Percent Utilization of Mebane Pump Stations, WRRF, and Graham WWTP.

As shown below an asterisk (*) beside the pump station's future design capacity denotes there will be an increase in capacity. Increases in pump station capacity are made by either an impeller change, a planned 3rd pump being added, wastewater flow being rerouted, or the pump station being rehabilitated. Also reflected are the elimination of the Wal-Mart, Arbor Creek, Fifth Street, and Third Street pump stations with gravity sewer outfall extensions and I/I rehabilitation and WRRF expansion (See Table 3).

FUTURE FLOW CAPACITY ANALYSIS (2050)				
PUMP STATION	PUMPS TO	DESIGN CAPACITY (GPD)	EXISTING & FUTURE FLOWS (GPD)	FUTURE CAPACITY %
Woodlawn Estates	North Regional	28,800	2,164	8%
North Regional	WRRF	*1,600,000	956,316	60%
Brookhollow	West Ten	316,800	106,724	34%
Richmond Hills	West Ten	46,080	5,512	12%
West Ten	Southeast Regional	*518,400	275,515	53%
Southeast Regional	WRRF	*1,600,000	1,137,586	71%
Terrell Street	Fieldstone	*230,400	119,274	52%
Governor's Green	Fieldstone	115,200	56,457	49%
GKN	City of Graham	*288,000	174,590	61%
Fieldstone	WRRF	*633,600	453,698	72%
Gravelly Hill	West Ten	115,200	61,304	53%
G.E.	WRRF	*403,200	78,075	19%
Farrar Lane	WRRF	288,000	212,669	74%
Byrd's	WRRF	57,600	10,445	18%
Mebane City Park	WRRF	80,640	1,088	1%
Cambridge Park	City of Graham	*403,200	261,460	65%
	City of Mebane WRRF	*4,000,000	3,394,244	85%
	City of Graham WWTP	750,000	713,522	95%

Table 3. Future Percent Utilization of Mebane Pump Stations, WRRF, and Graham WWTP.

Once the WRRF reaches 90% of design capacity the planned expansion from 4.0 MGD to 6.0 MGD must be permitted and under construction.

8. Summary and Recommended Action Items

The City of Mebane is addressing their primary wastewater needs with the expansion/upgrade of the WRRF to 4.0 MGD. This capital project with the previous purchase of capacity and planned flow reroutes to Graham's WWTP will serve Mebane until 2050.

The City of Graham is currently studying how the WTP can be expanded to address future demand. In addition, studies have begun for the possible expansion of the Lake. As an alternative to expanding the treatment plant and raw water supply, we

City of Mebane
Long Range Utility Plan

also recommend continued study of the possible purchase of Burlington water. Others purchasing water from Burlington include the City of Greensboro, the Towns of Whitsett, Gibsonville, Elon, Ossipee, Haw River, Village of Alamance, and Orange-Alamance Water System, Inc.. The City of Graham also purchases water from Burlington on an emergency basis. While infrastructure is in place through two emergency connections, additional improvements will be required in Graham's distribution system to provide daily water purchases from Burlington. Buying water from Burlington may defer the need for expansion of the WTP and Lake for decades.

As water and sewer funds are limited, we recommend a ranking of CIP projects advancing those that are most critical to Mebane. Water and sewer rates should continue to be reviewed annually and system development fees analyzed every 3 to 5 years. Mebane and Graham should continue applying for grants that assist with capacity needs, infrastructure analysis, and regulatory review.

In summary, the City of Mebane is in an advantageous position to address their future water and wastewater needs with previous planning and actions taken by Graham and Mebane Councils.

9. Appendices:

Exhibit A - Service Area (AWCK)

Exhibit B - 10-year plus CIP for Wastewater (AWCK)

Exhibit C - 10-year plus CIP for Water (AWCK)

Exhibit D - Boosted Pressure Zone (AWCK)

Exhibit E - Overall Wastewater (AWCK)

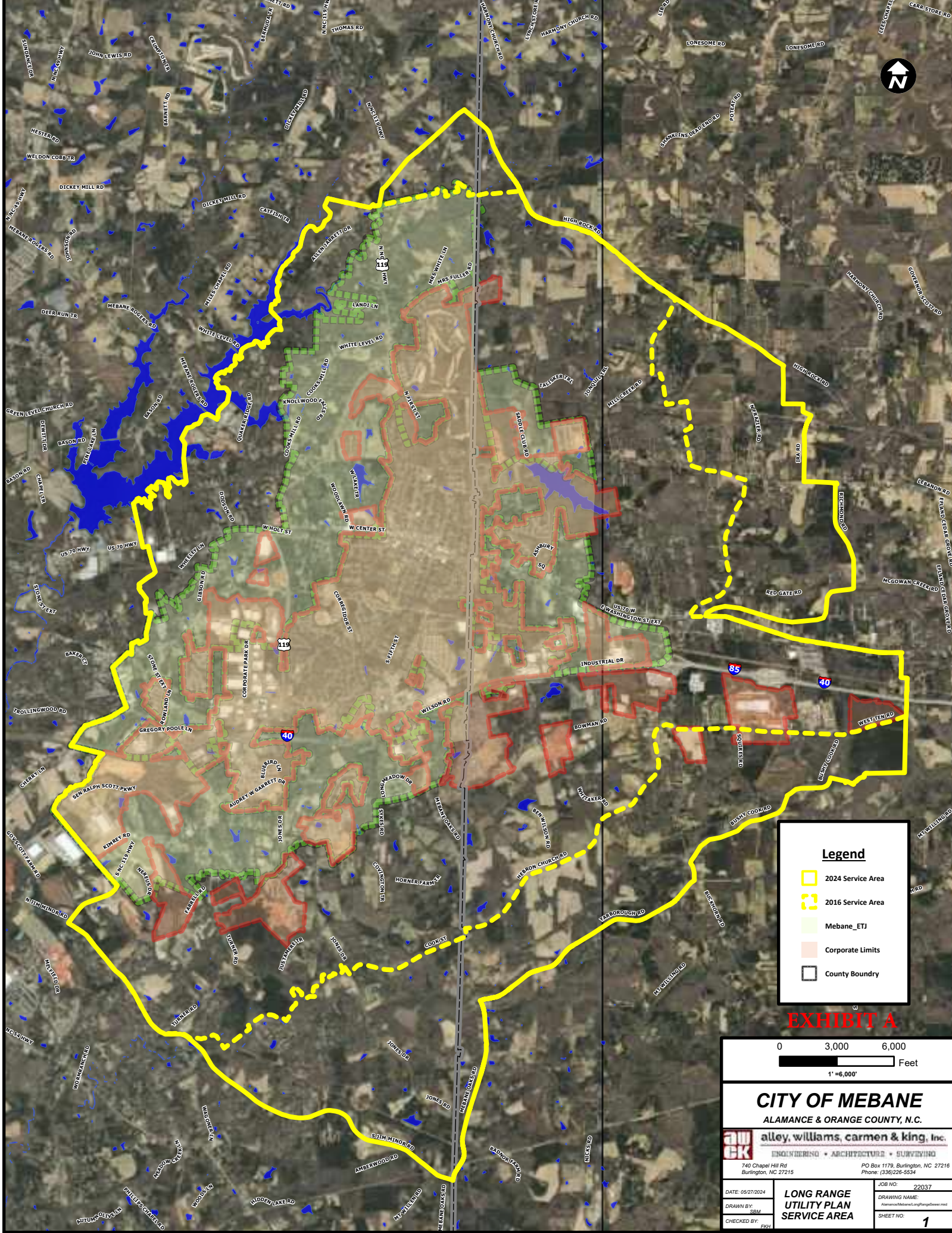
Exhibit F - Overall Water (AWCK)

Exhibit G - Graham-Mebane Water Supply 2023 LWSP June 4, 2024 (Hazen)

Exhibit H - 2023-24 Safe Yield Modeling for Graham-Mebane Lake (Hazen)

Exhibit I - Mebane WRRF Visioning Letter (McGill)

Exhibit J - Overall Site Plan for WRRF expansion (McGill)



Legend






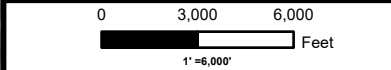
-  2024 Service Area
-  2016 Service Area
-  Mebane_ETJ
-  Corporate Limits
-  County Boundary

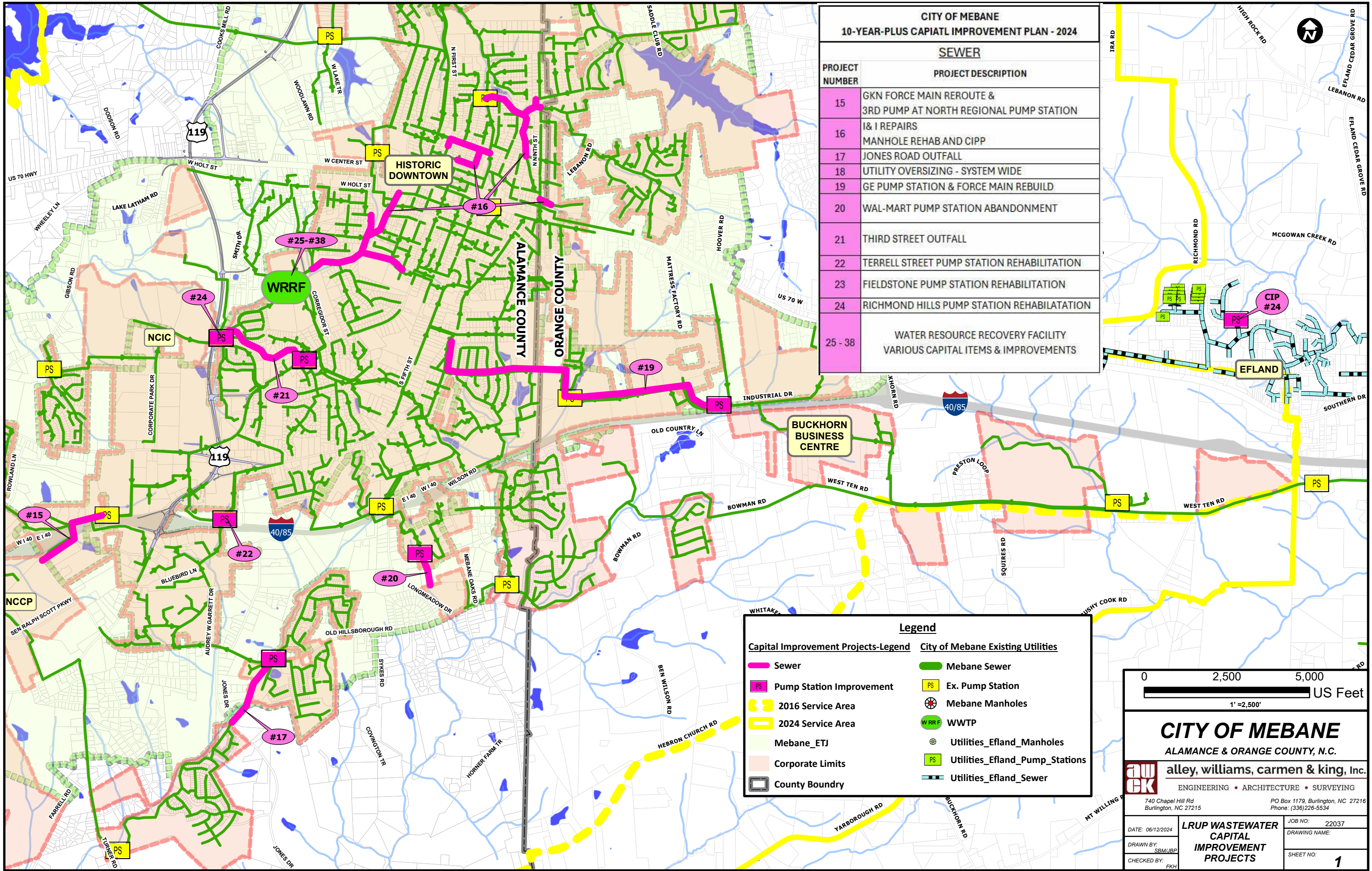
EXHIBIT A



CITY OF MEBANE
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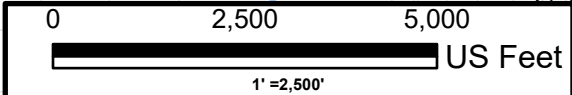
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740 Chapel Hill Rd
Burlington, NC 27215
PO Box 1179, Burlington, NC 27216
Phone: (336)226-5534

DATE: 05/27/2024	LONG RANGE UTILITY PLAN SERVICE AREA	JOB NO: 22037
DRAWN BY: SBM		DRAWING NAME: Alamance-Mebane-LongRangeServiceArea
CHECKED BY: FGH		SHEET NO: 1



CITY OF MEBANE 10-YEAR-PLUS CAPIATL IMPROVEMENT PLAN - 2024	
SEWER	
PROJECT NUMBER	PROJECT DESCRIPTION
15	GKN FORCE MAIN REROUTE & 3RD PUMP AT NORTH REGIONAL PUMP STATION
16	I & I REPAIRS
17	MANHOLE REHAB AND CIPP
18	JONES ROAD OUTFALL
19	UTILITY OVERSIZING - SYSTEM WIDE
20	GE PUMP STATION & FORCE MAIN REBUILD
21	WAL-MART PUMP STATION ABANDONMENT
22	THIRD STREET OUTFALL
23	TERRELL STREET PUMP STATION REHABILITATION
24	FIELDSTONE PUMP STATION REHABILITATION
25 - 38	RICHMOND HILLS PUMP STATION REHABILITATION
WATER RESOURCE RECOVERY FACILITY VARIOUS CAPITAL ITEMS & IMPROVEMENTS	

Legend	
Capital Improvement Projects-Legend	City of Mebane Existing Utilities
Sewer	Mebane Sewer
Pump Station Improvement	Ex. Pump Station
2016 Service Area	Mebane Manholes
2024 Service Area	WWTP
Mebane_ETJ	Utilities_Efland_Manholes
Corporate Limits	Utilities_Efland_Pump_Stations
County Boundry	Utilities_Efland_Sewer



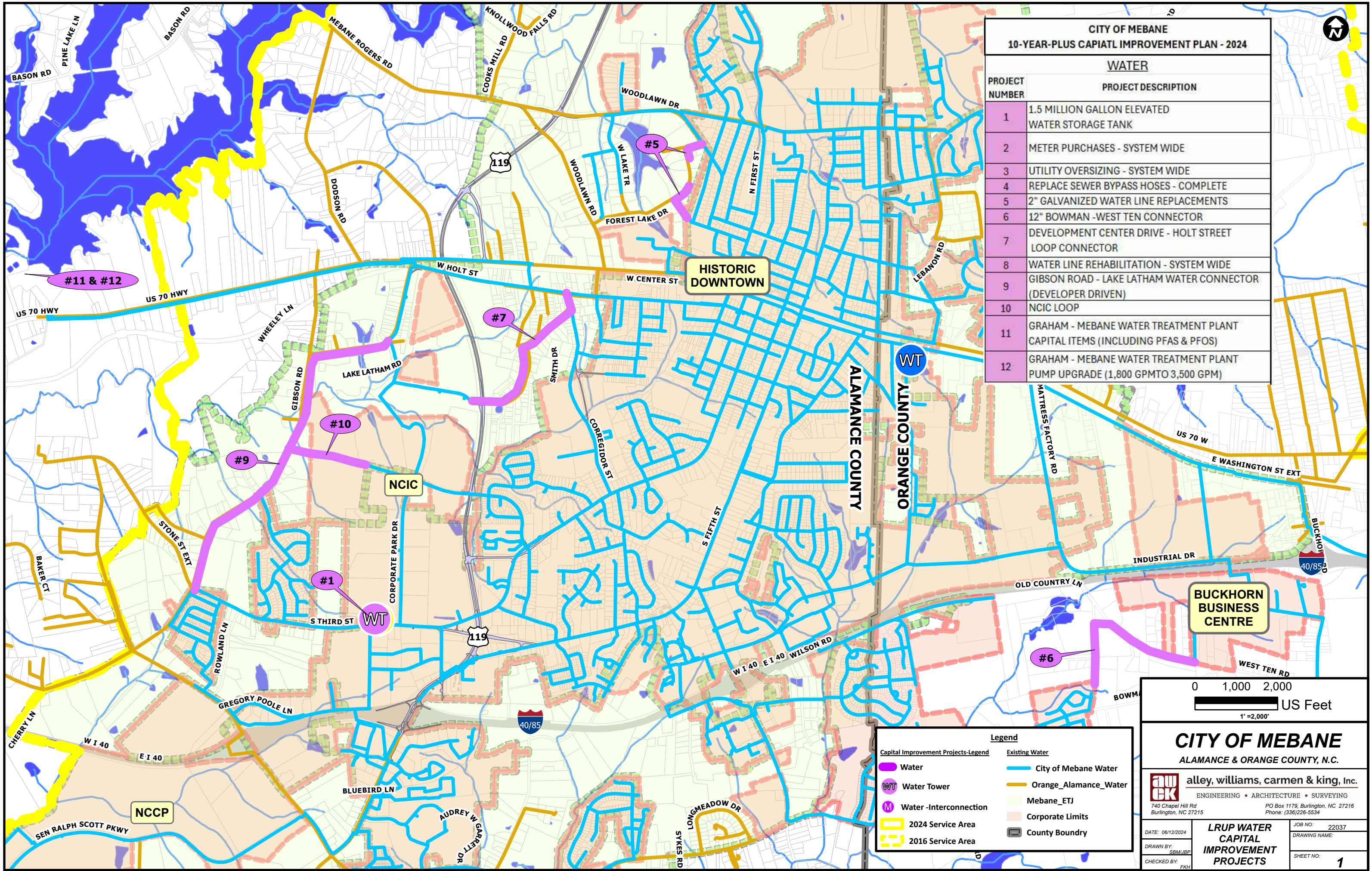
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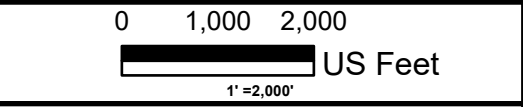
PO Box 1179, Burlington, NC 27216
Phone: (336)226-5534

DATE: 06/12/2024	LRUP WASTEWATER CAPITAL IMPROVEMENT PROJECTS	JOB NO: 22037
DRAWN BY: SBM/JBP		DRAWING NAME:
CHECKED BY: FKH		SHEET NO: 1



CITY OF MEBANE 10-YEAR-PLUS CAPIATL IMPROVEMENT PLAN - 2024	
WATER	
PROJECT NUMBER	PROJECT DESCRIPTION
1	1.5 MILLION GALLON ELEVATED WATER STORAGE TANK
2	METER PURCHASES - SYSTEM WIDE
3	UTILITY OVERSIZING - SYSTEM WIDE
4	REPLACE SEWER BYPASS HOSES - COMPLETE
5	2" GALVANIZED WATER LINE REPLACEMENTS
6	12" BOWMAN - WEST TEN CONNECTOR
7	DEVELOPMENT CENTER DRIVE - HOLT STREET LOOP CONNECTOR
8	WATER LINE REHABILITATION - SYSTEM WIDE
9	GIBSON ROAD - LAKE LATHAM WATER CONNECTOR (DEVELOPER DRIVEN)
10	NCIC LOOP
11	GRAHAM - MEBANE WATER TREATMENT PLANT CAPITAL ITEMS (INCLUDING PFAS & PFOS)
12	GRAHAM - MEBANE WATER TREATMENT PLANT PUMP UPGRADE (1,800 GPMT0 3,500 GPM)

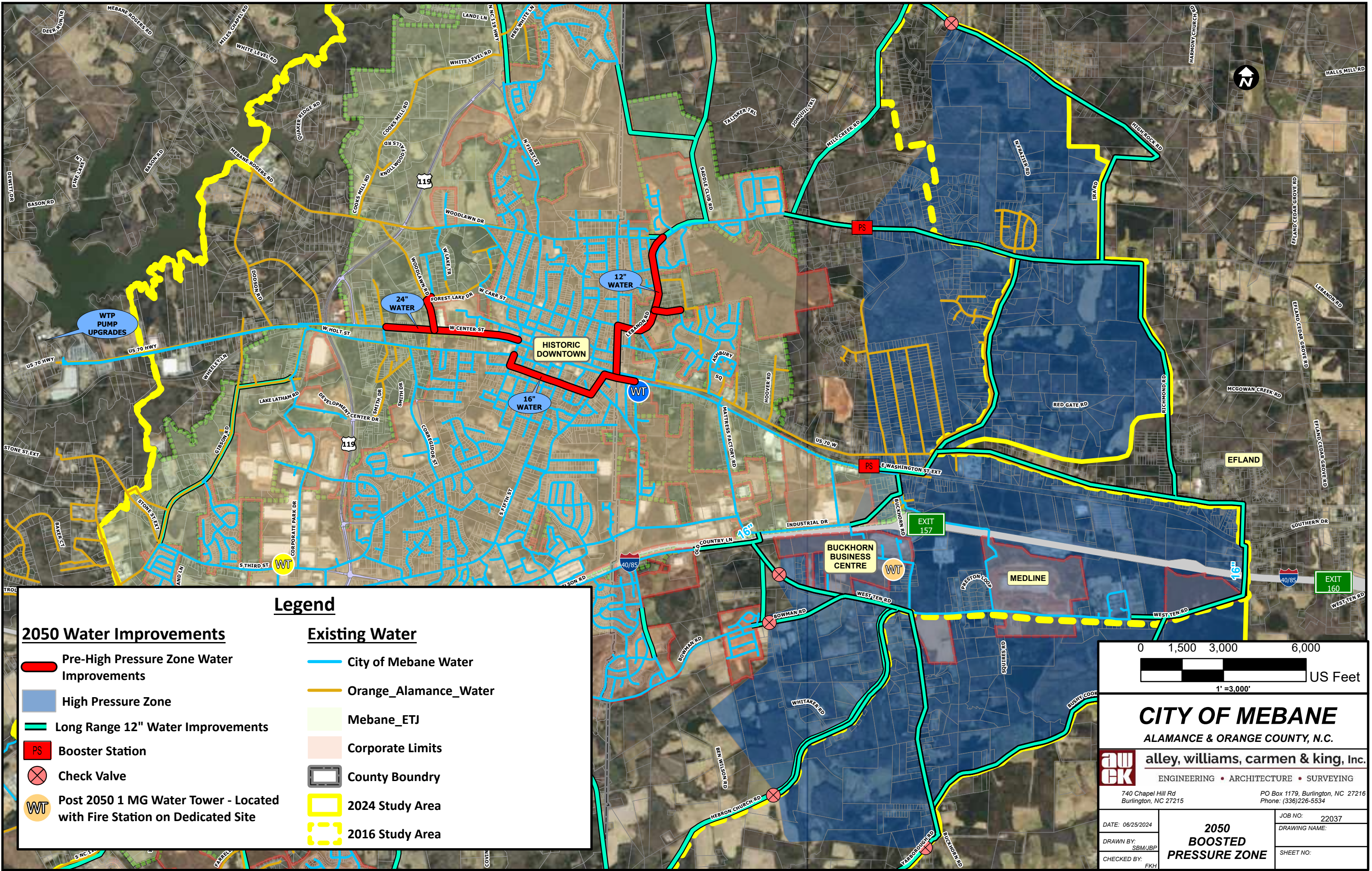
Legend	
Capital Improvement Projects-Legend	Existing Water
Water	City of Mebane Water
WT Water Tower	Orange_Alamance_Water
Water -Interconnection	Mebane_ETJ
2024 Service Area	Corporate Limits
2016 Service Area	County Boundary



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DATE: 06/12/2024	LRUP WATER CAPITAL IMPROVEMENT PROJECTS	JOB NO: 22037
DRAWN BY: SBM/JBP	CHECKED BY: FKH	DRAWING NAME:
		SHEET NO: 1



2050 Water Improvements

- Pre-High Pressure Zone Water Improvements
- High Pressure Zone
- Long Range 12" Water Improvements
- Booster Station (PS)
- Check Valve
- Post 2050 1 MG Water Tower - Located with Fire Station on Dedicated Site (WT)

Existing Water

- City of Mebane Water
- Orange_Alamance_Water
- Mebane_ETJ
- Corporate Limits
- County Boundary
- 2024 Study Area
- 2016 Study Area

0 1,500 3,000 6,000
US Feet
1" = 3,000'

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Burlington, NC 27215

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Phone: (336)226-5534

DATE: 06/25/2024	2050 BOOSTED PRESSURE ZONE	JOB NO: 22037
DRAWN BY: SBM/JBP		DRAWING NAME:
CHECKED BY: FKH		SHEET NO:

RESIDENTIAL PROJECTS		
MAP KEY	APPROVED PROJECT/ UNDER CONSTRUCTION	REMAINING ERUs
A-1	TUPELO JUNCTION	170
A-2	STAGECOACH CORNER	35
A-3	OAKWOOD STREET SUBDIVISION	195
A-4	OAKWOOD SQUARE TOWNS	45
A-5	MEBANE TOWNE CENTER - T1	471
A-6	HAWFIELDS LANDING	436
A-7	CAMBRIDGE PARK	477
A-8	MAGNOLIA GLEN	130
A-9	MEADOWSTONE TOWNHOMES	147
A-10	BOWMAN VILLAGE	18
A-11	BOWMAN PLACE	91
A-12	KINGSDOWN	218
A-13	MEADOWS	114
A-14	VILLAS ON 5TH	15
A-15	ST BARTS PLACE	12
A-16	11TH STREET APARTMENTS	48
A-17	MONTECLAIR	6
A-18	LOT 8A	22
A-19	DRPBS	183
A-20	GILES ST APARTMENTS	8
A-21	STATION 206	30
A-22	N FIRST STREET TOWNHOMES	150
A-23	PEARTREE TOWNHOMES	70
A-24	TUPELO NORTH	207
A-25	POTTERS MILL TOWNHOMES	42
S-1	NORTH MEBANE VILLAGE	161
S-2	PRESERVE AT MILL CREEK	586
S-3	MILL RUN	18
S-4	SADDLE CLUB	125
S-5	MEBANE OAKS DEVELOPMENT (EVOLVE)	389
S-6	DEEP RIVER	90
TOTAL SUBMITTED OR APPROVED PROJECT ERUS REMAINING		4,709

**REMAINING ERUS* BASED ON PRELIMINARY PLANS SUBMITTED TO CITY OF MEBANE OR REMAINING LOTS TO BE BUILT IN PROJECTS UNDER CONSTRUCTION

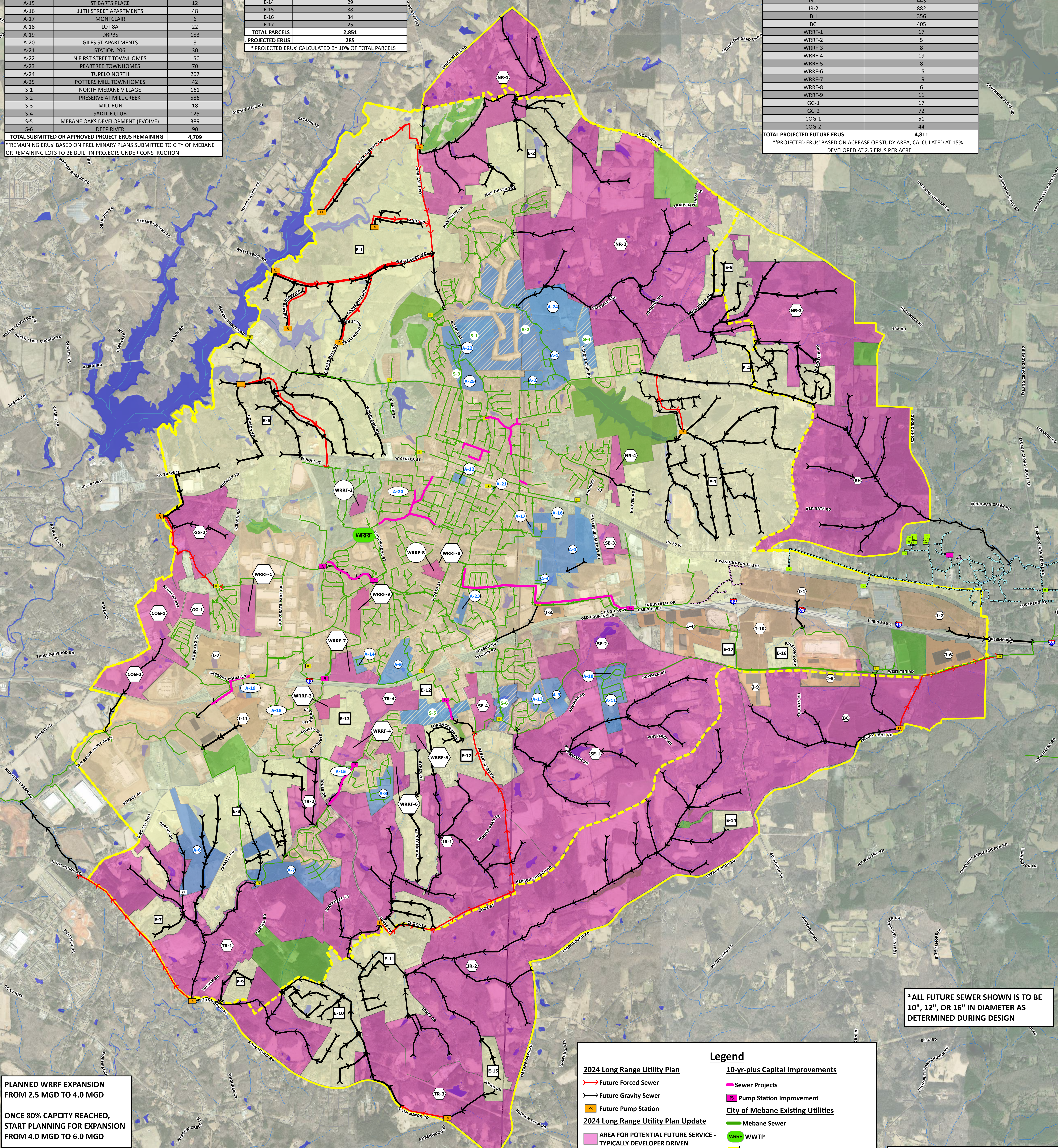
DEVELOPED RESIDENTIAL AREAS FOR POSSIBLE FUTURE SERVICE		
MAP KEY	PARCELS	
E-1	265	
E-2	93	
E-3	656	
E-4	212	
E-5	140	
E-6	323	
E-7	48	
E-8	332	
E-9	47	
E-10	152	
E-11	191	
E-12	211	
E-13	55	
E-14	29	
E-15	38	
E-16	34	
E-17	25	
TOTAL PARCELS		2,851
PROJECTED ERUS		285
PROJECTED ERUS CALCULATED BY 10% OF TOTAL PARCELS		

POSSIBLE FUTURE NON-RESIDENTIAL DEVELOPMENT				
MAP KEY	APPROVED PROJECT/ UNDER CONSTRUCTION	BUILDING SIZE(S) (SF)	ACRES	EQUIVALENT ERUS
I-1	POSSIBLE INDUSTRIAL	450,000	10.2	42
I-2	POSSIBLE INDUSTRIAL	241,362	5.5	22
I-3	BUCKHORN BUSINESS CENTER - COMMERCIAL	805,200	18.4	72
I-4	EXETER INDUSTRIAL	533,181	12.1	48
I-5	SKYWAYER - INDUSTRIAL	900,000	20.5	78
I-6	ROWLAND LANE - COMMERCIAL		60	140
I-8	EFLAND INDUSTRIAL CENTER (NOT SHOWN ON MAP)		100	233
I-9	WEST TEN INDUSTRIAL	375,000	8.5	32
I-10	BUCKHORN INDUSTRIAL	793,640	18.1	68
I-11	TROLLINGWOOD HAWFIELDS - COMMERCIAL		60	140
TOTAL PROJECTED NON-RESIDENTIAL ERUS				1,027

*BUILDING SIZE DATA BASED ON PRELIMINARY PLANS SUBMITTED TO CITY OF MEBANE OR CONSTRUCTION PLANS

POSSIBLE FUTURE AREAS FOR RESIDENTIAL DEVELOPMENT		
MAP KEY	PROJECTED ERUS	
NR-1	263	
NR-2	563	
NR-3	315	
NR-4	14	
TR-1	403	
TR-2	36	
TR-3	173	
TR-4	30	
SE-1	472	
SE-2	110	
SE-3	39	
SE-4	19	
JR-1	443	
JR-2	882	
BH	356	
BC	405	
WRRF-1	17	
WRRF-2	5	
WRRF-3	8	
WRRF-4	19	
WRRF-5	8	
WRRF-6	15	
WRRF-7	19	
WRRF-8	6	
WRRF-9	11	
GG-1	17	
GG-2	72	
COG-1	51	
COG-2	44	
TOTAL PROJECTED FUTURE ERUS		4,811

**PROJECTED ERUS* BASED ON INCREASE OF STUDY AREA, CALCULATED AT 15% DEVELOPED AT 2.5 ERUS PER ACRE



PLANNED WRRF EXPANSION FROM 2.5 MGD TO 4.0 MGD
ONCE 80% CAPACITY REACHED, START PLANNING FOR EXPANSION FROM 4.0 MGD TO 6.0 MGD

***ALL FUTURE SEWER SHOWN IS TO BE 10", 12", OR 16" IN DIAMETER AS DETERMINED DURING DESIGN**

Legend

2024 Long Range Utility Plan

- Future Forced Sewer
- Future Gravity Sewer
- Future Pump Station

2024 Long Range Utility Plan Update

- AREA FOR POTENTIAL FUTURE SERVICE - TYPICALLY DEVELOPER DRIVEN
- AREA FOR POTENTIAL FUTURE SERVICE - TYPICALLY OWNER/COMMUNITY DRIVEN
- 2024 APPROVED RESIDENTIAL DEVELOPMENT
- 2024 SUBMITTED RESIDENTIAL DEVELOPMENT
- FUTURE INDUSTRIAL DEVELOPMENT
- FUTURE INDUSTRIAL BUILDING

10-yr-plus Capital Improvements

- Sewer Projects
- Pump Station Improvement

City of Mebane Existing Utilities

- Mebane Sewer
- WRRF WWTP
- Ex. Pump Station
- Efland Pump Station
- Efland Sewer
- Corporate Limits
- Mebane_ETJ
- County Boundary
- Stream
- Surface Water
- Conservation Land

2024 Service Area

2016 Service Area

LONG RANGE UTILITY PLAN - 2050 SUMMARY			
SEWER TO WRRF		SEWER TO CITY OF GRAHAM WASTEWATER TREATMENT PLANT	
SUBMITTED OR APPROVED PROJECTS	3,471 ERUS	SUBMITTED OR APPROVED PROJECTS	1,238 ERUS
DEVELOPED RESIDENTIAL AREAS FOR POSSIBLE FUTURE SERVICE	222 ERUS	DEVELOPED RESIDENTIAL AREAS FOR POSSIBLE FUTURE SERVICE	63 ERUS
POSSIBLE FUTURE NON-RESIDENTIAL DEVELOPMENT	748 ERUS	POSSIBLE FUTURE NON-RESIDENTIAL DEVELOPMENT	279 ERUS
POSSIBLE FUTURE AREAS FOR RESIDENTIAL DEVELOPMENT	4,076 ERUS	POSSIBLE FUTURE AREAS FOR RESIDENTIAL DEVELOPMENT	736 ERUS
TOTAL ERUS ADDED BY 2050	8,517 ERUS	TOTAL ERUS ADDED BY 2050	2,316 ERUS
EXISTING WRRF ADF (INCLUDING PUMP STATION RE-ROUTES)	1,585,204 GPD	EXISTING CITY OF GRAHAM ADF (INCLUDING PUMP STATION RE-ROUTES)	219,511 GPD
ADDITIONAL FLOW - 2050	1,831,063 GPD	ADDITIONAL FLOW - 2050	497,987 GPD
TOTAL WRRF ADF - 2050	3,416,267 GPD	TOTAL GRAHAM ADF (AGREEMENT OF 750,000 GPD) - 2050	717,498 GPD

PROJECTED TOTAL ERUS ADDED BY 2050	10,833	1 ERU = 215 GPD EACH
PROJECTED POPULATION ADDED BY 2050	27,082	
CITY OF MEBANE EXISTING POPULATION 2024	21,397	
CITY OF MEBANE PROJECTED POPULATION 2050	48,479	

0 1,000 2,000 4,000 US Feet
 1" = 1,500'

CITY OF MEBANE
 ALAMANCE & ORANGE COUNTY, N.C.

alley, williams, carmen & king, inc.
 ENGINEERING • ARCHITECTURE • SURVEYING

740 Chapel Hill Rd
 Burlington, NC 27215
 PO Box 1179 Burlington, NC 27216
 Phone: (336)226-5534

DATE: 6/24/2024
 DRAWN BY: SBM/BJP
 CHECKED BY: FKH

LONG RANGE UTILITY PLAN WASTEWATER (2050)

JOB NO: 22037
 DRAWING NAME: Long Range Utility Plan Wastewater (2050)
 SHEET NO: 1

EXHIBIT E



NOTE: PORTIONS OF EXISTING DEVELOPMENTS ARE CURRENTLY SERVED BY ORANGE-ALAMANCE WATER

Legend

Water	2016 Study Area
Booster Station	2024 Study Area
Check Valve	City of Mebane Water
Boosted Pressure Zone	Orange-Alamance Water
Pre-High Pressure Zone Water Improvements	Corporate Limits
Proposed Water	Mebane_ET3
2024 Long Range Utility Plan Update	County Boundary
AREA FOR POTENTIAL FUTURE SERVICE - TYPICALLY DEVELOPER DRIVEN	Surface Water
AREA FOR POTENTIAL FUTURE SERVICE - TYPICALLY OWNER/COMMUNITY DRIVEN	Stream
2024 APPROVED RESIDENTIAL DEVELOPMENT	
2024 SUBMITTED RESIDENTIAL DEVELOPMENT	
FUTURE INDUSTRIAL DEVELOPMENT	
FUTURE INDUSTRIAL BUILDING	

0 1,000 2,000 4,000 US Feet
1" = 1,500'

CITY OF MEBANE
ALAMANCE & ORANGE COUNTY, N.C.

al alley, williams, carmen & king, inc.
ENGINEERING • ARCHITECTURE • SURVEYING
740 Chapel Hill Rd
Burlington, NC 27215

LONG RANGE UTILITY PLAN WATER (2050)
DATE: 06/03/2024
DRAWN BY: SBM/UBP
CHECKED BY: F9H

JOB NO: 22037
DRAWING NAME: <https://www.alleywilliams.com/projects/long-range-utility-plan-water-2050>
SHEET NO: 1

Graham-Mebane Water Supply Update



June 4, 2024

Background

- In April 2021 Hazen completed a project for Mebane focusing on a new tank to sustain fire flows as water demand increases
- In October 2021 Hazen completed a storage and transmission main evaluation for Graham using new population projections reflecting significant growth
- In January 2022, Hazen met with Graham, Mebane and AWCK staff to review findings after integrating the two projects and assess impacts on raw water supply and WTP capacity
- Hazen's January 2024 report updated the safe yield of the raw water supply
- The following presentation updates the water supply study projections using population and demand projections shown in the 2023 Local Water Supply Plans (LWSPs) submitted by Mebane and Graham with adjustments for unaccounted-for water, flushing and backwash

Topics

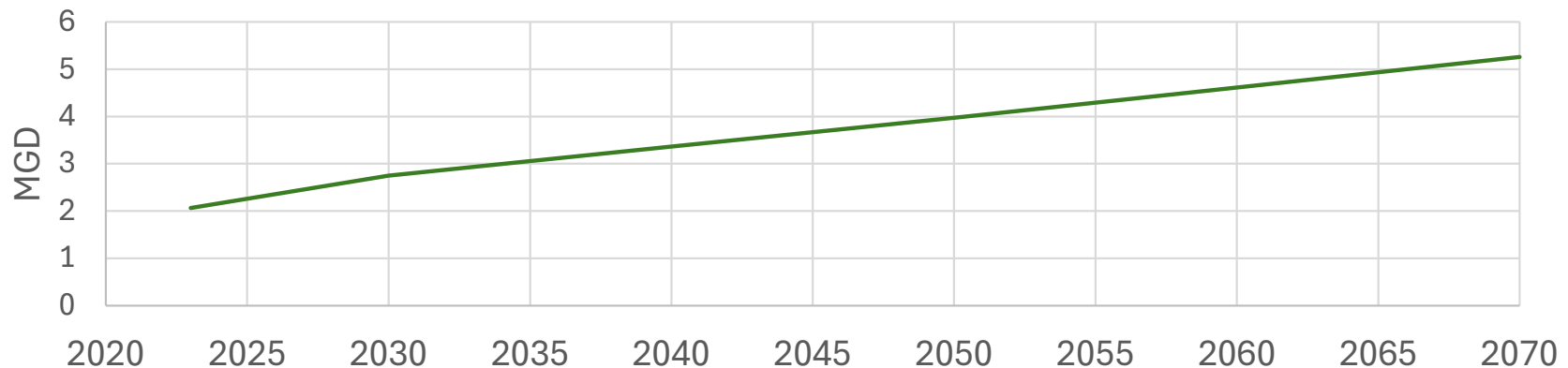
1. Water Demand Projections
2. Raw Water Supply
3. Water Treatment
4. Project Timeline



Average Day Water Demand Projections From Mebane's 2023 Local Water Supply Plan

	2023	2030	2040	2050	2060	2070
Year-Round Population from 2023 LWSP	21,397	30,896	40,164	48,197	55,427	60,969
Residential	0.926	1.355	1.736	2.052	2.325	2.520
Commercial	0.237	0.281	0.366	0.476	0.618	0.804
Industrial	0.384	0.446	0.557	0.697	0.871	1.089
Institutional	0.226	0.153	0.168	0.185	0.204	0.224
System Process	0.012	0.295	0.310	0.325	0.342	0.359
Unaccounted-for	0.284	0.217	0.228	0.239	0.251	0.264
Service Area Demand	2.068	2.747	3.365	3.974	4.611	5.260
Sales (OAWS)	0	0	0	0	0	0
Future Sales	0	0	0	0	0	0
2023 LWSP Average Day - mgd	2.068	2.747	3.365	3.974	4.611	5.260

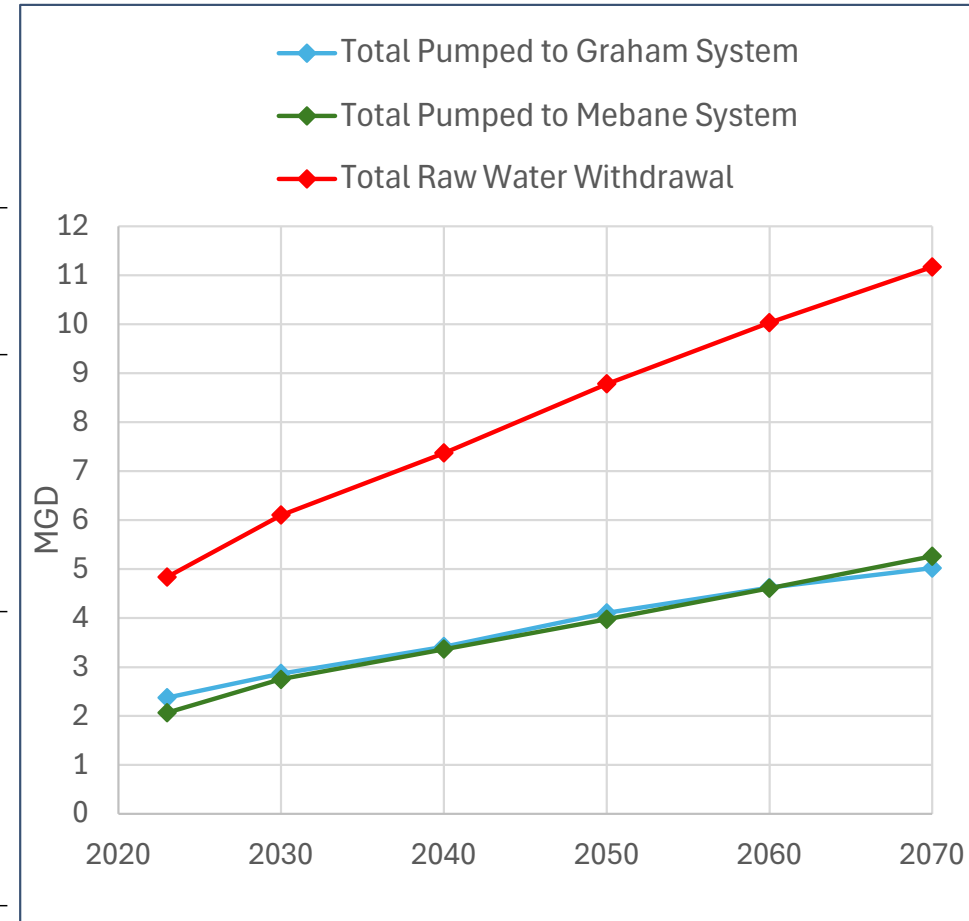
Total Average Day Demand - Mebane



Water Summary for Graham, Mebane and WTP

Graham

Water Use by Type	2023	2030	2040	2050	2060	2070
Residential	0.713	0.861	1.076	1.346	1.548	1.702
Commercial	0.385	0.496	0.620	0.776	0.892	0.981
Industrial	0.206	0.303	0.378	0.473	0.544	0.598
Institutional	0.044	0.080	0.100	0.125	0.144	0.158
System Process (Flushing)	0.120	0.132	0.165	0.206	0.237	0.261
Unaccounted-for	0.594	0.330	0.413	0.516	0.594	0.653
Service Area Total	2.062	2.203	2.753	3.442	3.958	4.354
Water Sales						
Burlington	0.002	0.000	0.000	0.000	0.000	0.000
Green Level	0.107	0.365	0.365	0.365	0.365	0.365
Haw River	0.001	0.000	0.000	0.000	0.000	0.000
Orange Alamance	0.000	0.000	0.000	0.000	0.000	0.000
Sweptsonville	0.201	0.300	0.300	0.300	0.300	0.300
Total Sales	0.310	0.665	0.665	0.665	0.665	0.665
Total Pumped to Graham System	2.372	2.867	3.417	4.106	4.622	5.018
Total Pumped to Mebane System	2.068	2.747	3.365	3.974	4.611	5.260
Total Finished Water Pumped	4.440	5.614	6.782	8.081	9.233	10.278
WTP Process Water	0.400	0.488	0.590	0.703	0.803	0.894
Total Raw Water Withdrawal	4.840	6.102	7.372	8.783	10.036	11.172



Assumptions for future years:

6% for flushing

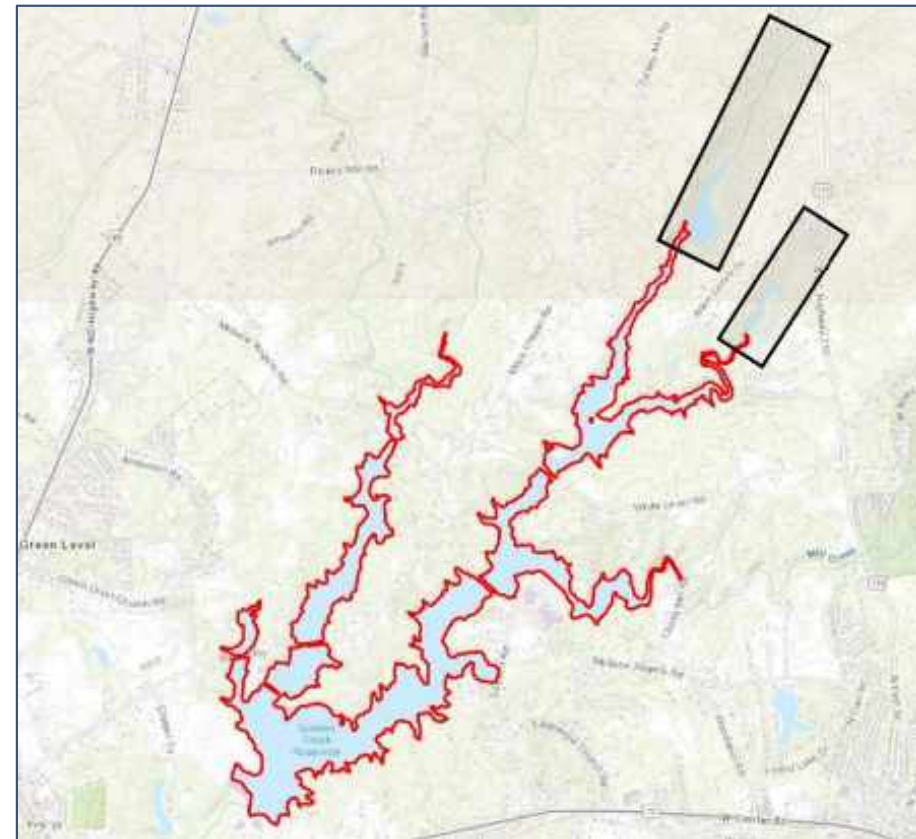
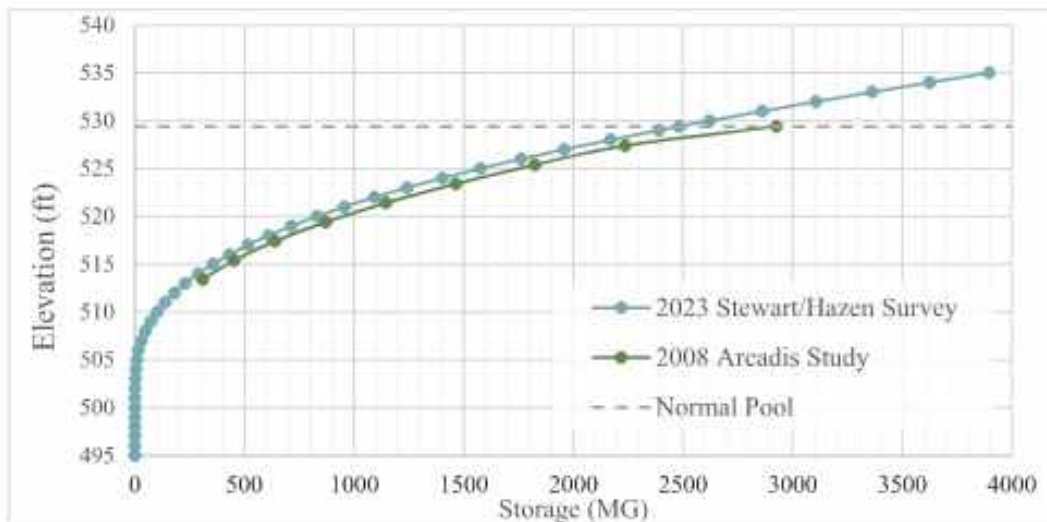
15% for unaccounted for water

8% for WTP process water

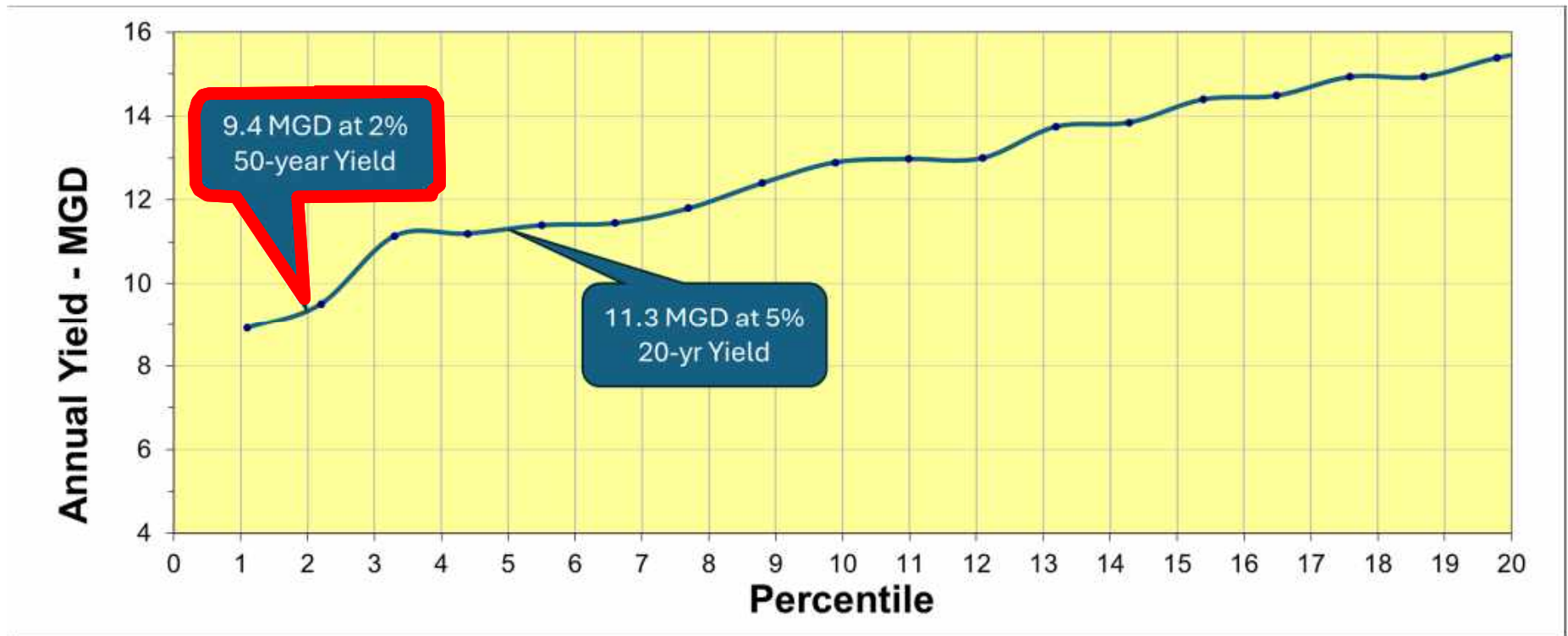
Topic 2: Safe Yield of Raw Water Supply Updated Using Bathymetric Survey and Reservoir Modeling

Stewart's reservoir study involved a comprehensive survey of the lake floor and surrounding areas up to the 535-foot contour line.

Hydrologic modeling used OASIS software to evaluate safe yield.



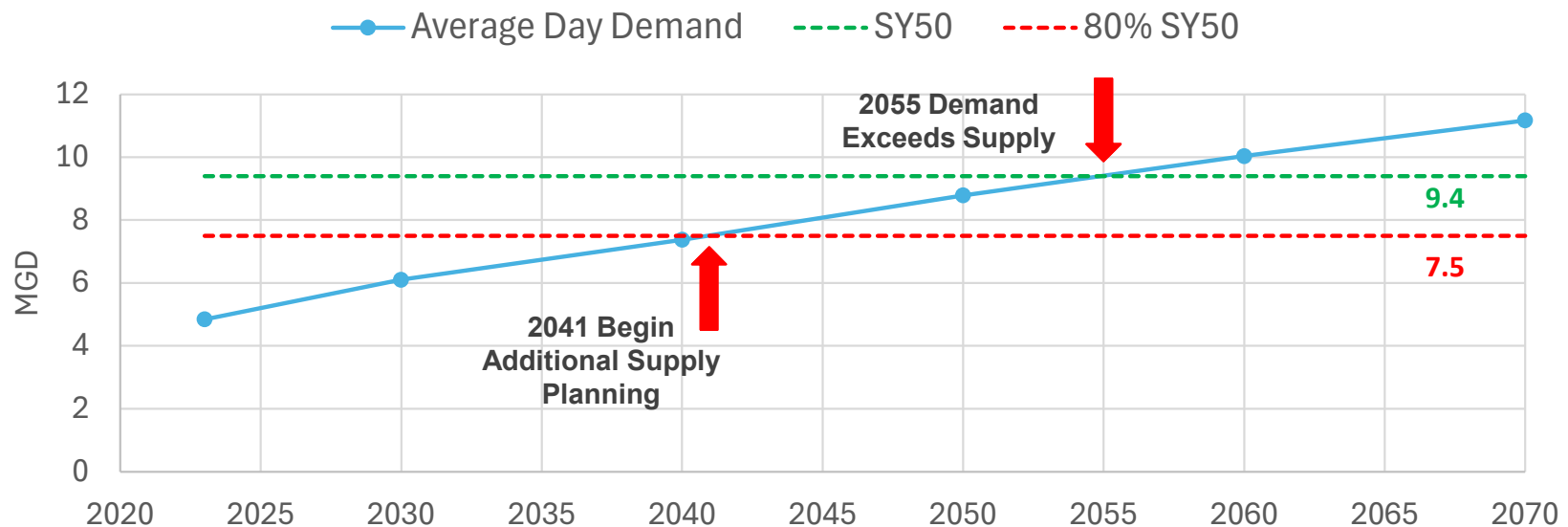
Modeled Yield Return Frequency: 9.4 mgd is 50-year Safe Yield



Combined Mebane and Graham Average Day Demand Compared to Safe Yield of Raw Water Supply

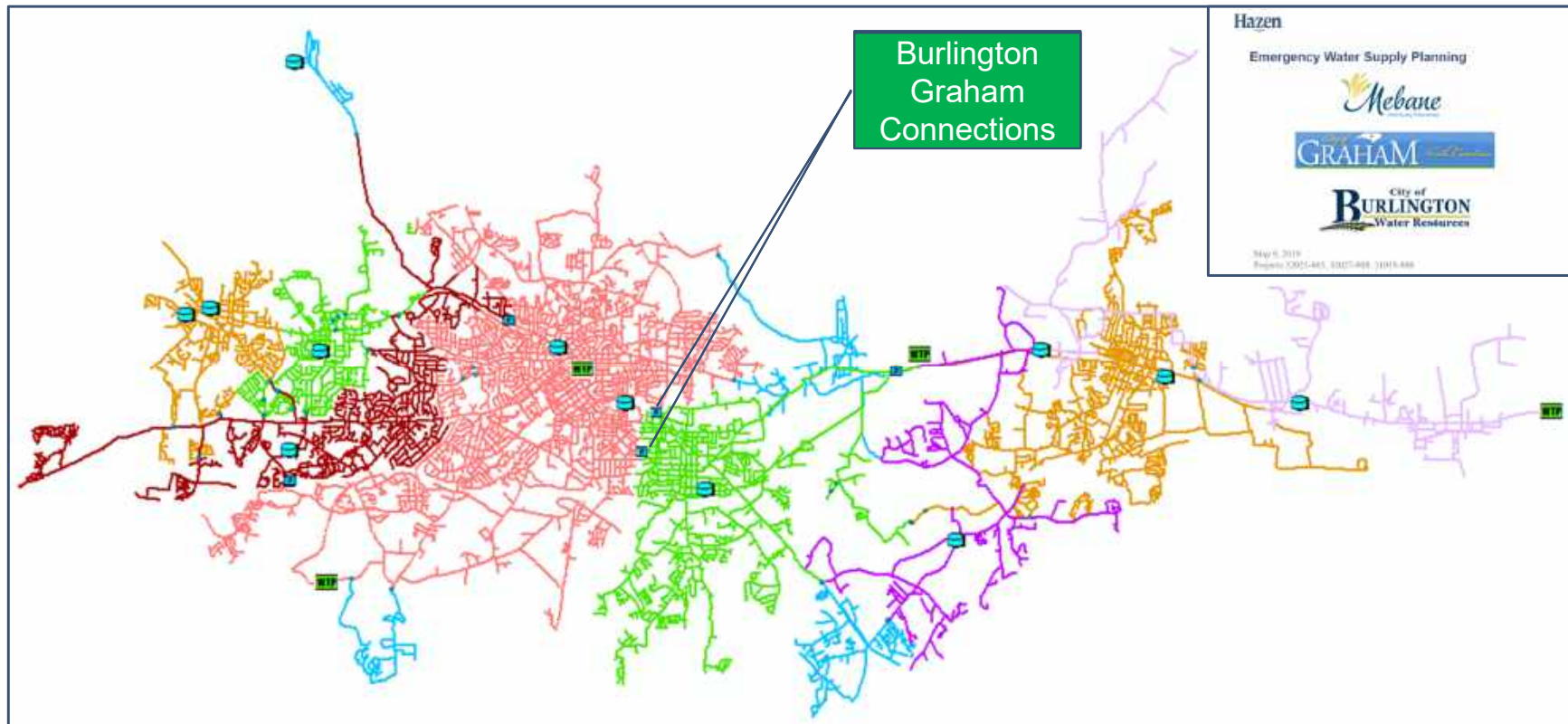
	2023	2030	2040	2050	2060	2070
<u>Average Water Use -mgd:</u>						
Mebane Service Area (2023 LWSP)	2.068	2.747	3.365	3.974	4.611	5.260
Graham Service Area (Revised)	2.062	2.203	2.753	3.442	3.958	4.354
Green Level & Swepsonville (contract limits)	0.310	0.665	0.665	0.665	0.665	0.665
Total Average Day Demand - mgd	4.440	5.614	6.782	8.081	9.233	10.278
WTP Process Water at 8% - mgd	0.400	0.488	0.590	0.703	0.803	0.894
Total Raw Water Withdrawal - mgd	4.840	6.102	7.372	8.783	10.036	11.172
2024 HAZEN 50-Year Safe Yield - mgd	9.4	9.4	9.4	9.4	9.4	9.4
80% of 50-Yr Safe Yield - mgd	7.5	7.5	7.5	7.5	7.5	7.5

Total WTP Average Day Demand and Safe Yield



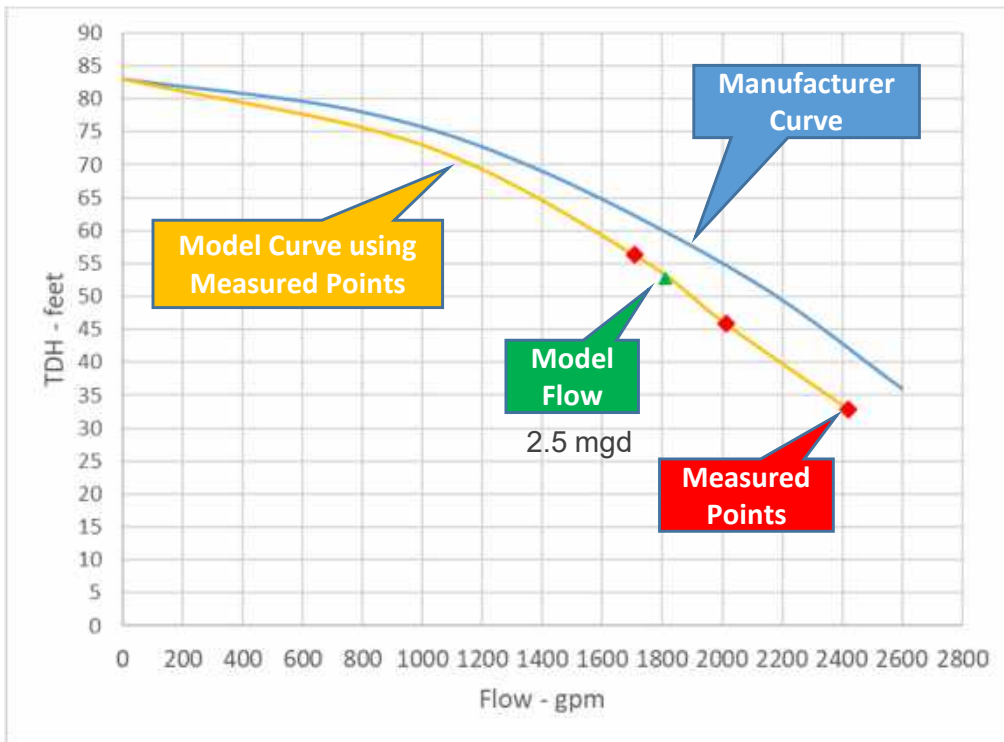
How to Delay Need for Additional Raw Water Supply

Purchase water continuously from Burlington using existing connections based on modeling from 2019 Emergency Water Supply Study

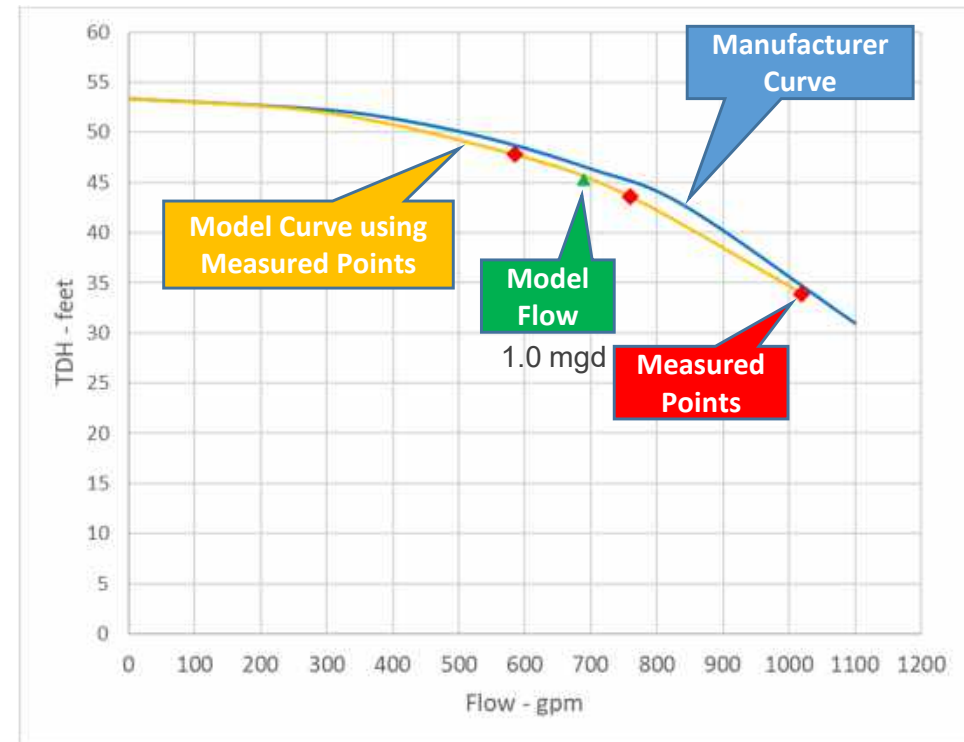


Transferring Water from Burlington to Graham Frees Up Plant Capacity to Supply Mebane and Delays Need for Additional Raw Water Supply

Graham-Hopedale Pump Station



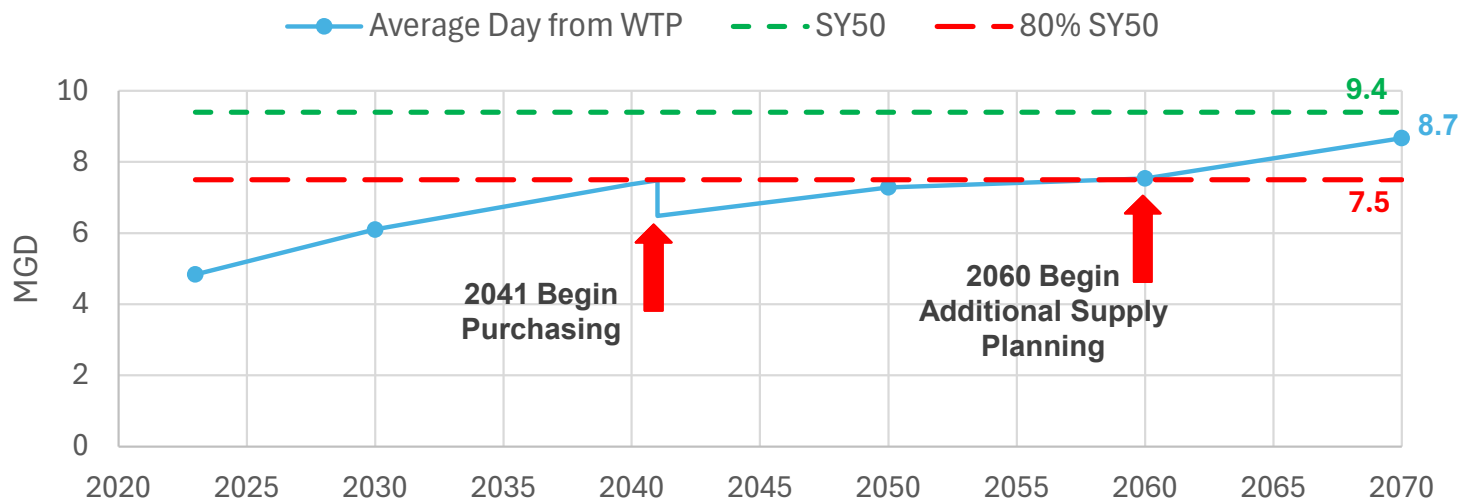
Webb Pump Station



Purchasing Water from Burlington Continuously By 2041 Delays Need for Additional Water Supply Beyond 2070

	2023	2030	2040	2050	2060	2070
Average Water Use - mgd:						
Mebane Service Area (2023 LWSP)	2.068	2.747	3.365	3.974	4.611	5.260
Graham Service Area	2.062	2.203	2.753	3.442	3.958	4.354
Green Level & Swepsonville (contract limits)	0.310	0.665	0.665	0.665	0.665	0.665
Total Average Day Demand - mgd						
Total Average Day Demand - mgd	4.440	5.614	6.782	8.081	9.233	10.278
WTP Process Water - mgd	0.400	0.488	0.590	0.703	0.803	0.894
Total Raw Water Withdrawal - mgd	4.840	6.102	7.372	8.783	10.036	11.172
Continuous Purchase from Burlington - mgd	0.000	0.000	0.000	1.500	2.500	2.500
Average Day from WTP with Burlington Supply - mgd	4.840	6.102	7.372	7.283	7.536	8.672
2024 HAZEN 50-Year Safe Yield - mgd	9.4	9.4	9.4	9.4	9.4	9.4
80% of 50-Year Safe Yield - mgd	7.5	7.5	7.5	7.5	7.5	7.5

Total WTP Average Day Demand and Safe Yield



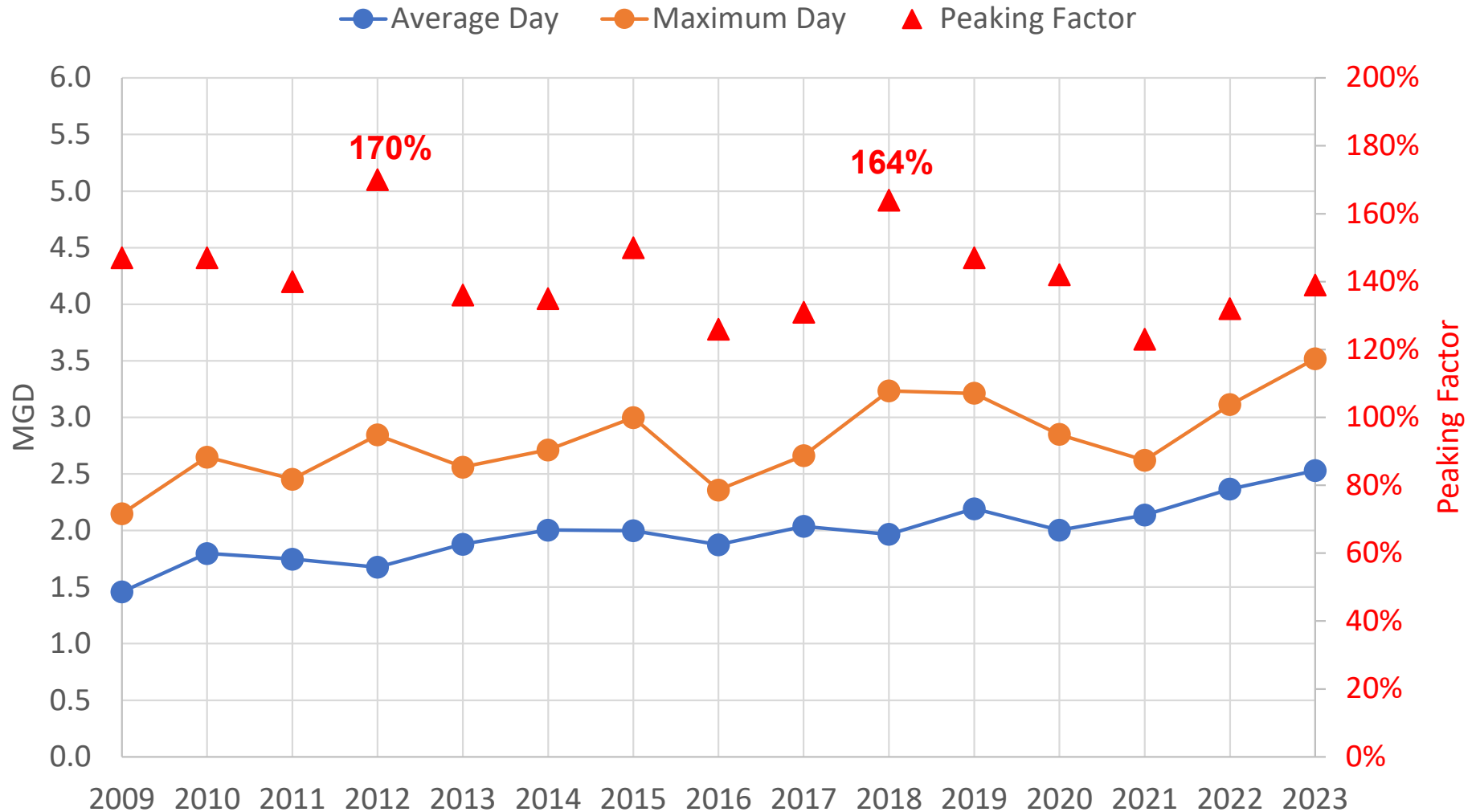
Topic 3: Water Treatment Plant Capacity Must Keep Pace With Maximum Day Demand

Water plant production must supply total maximum day demand in both systems concurrently to prevent emptying tanks and depleting reserves for fires

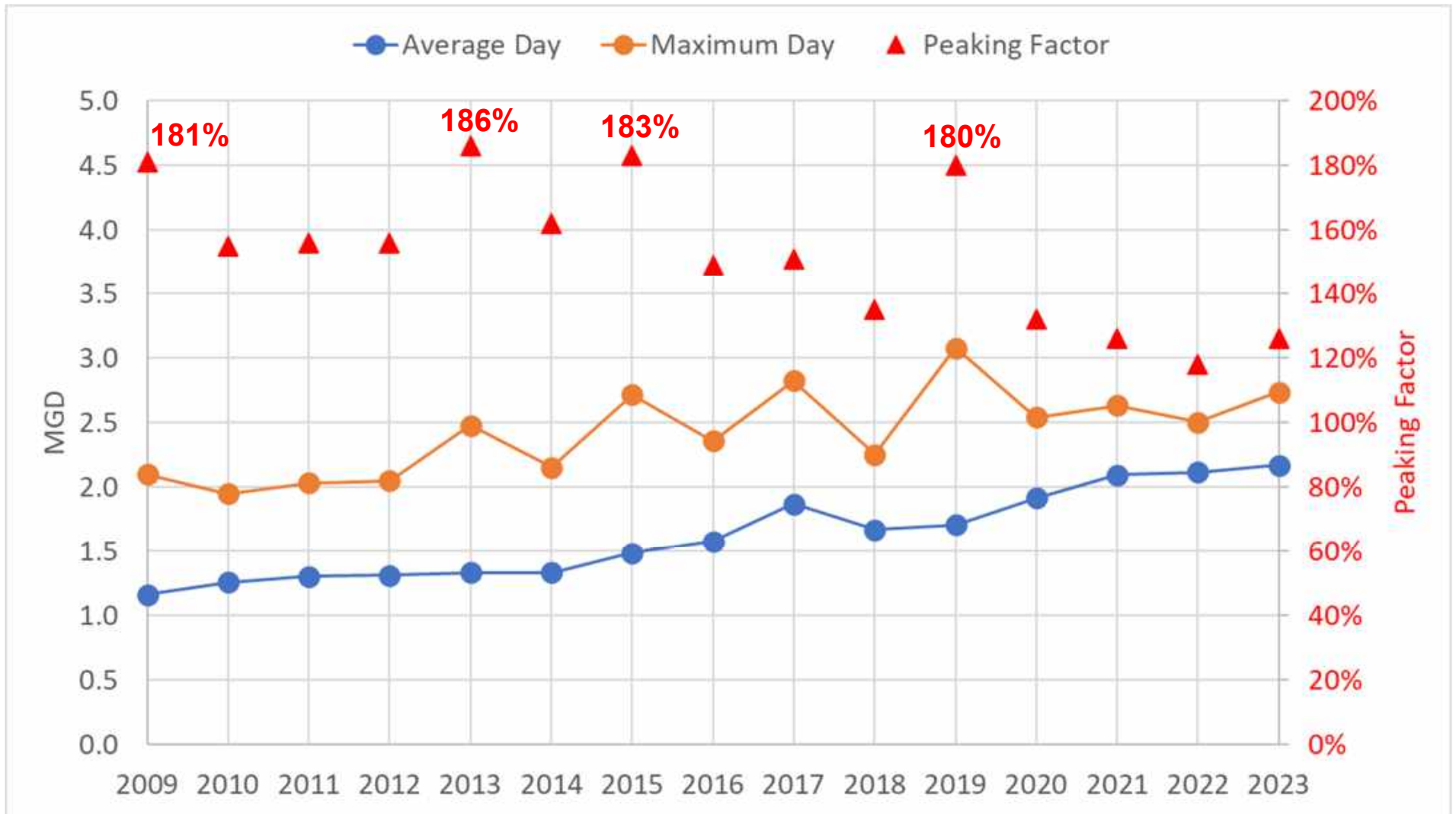
Maximum day demands in future years estimated by applying peaking factors to average day demand projections



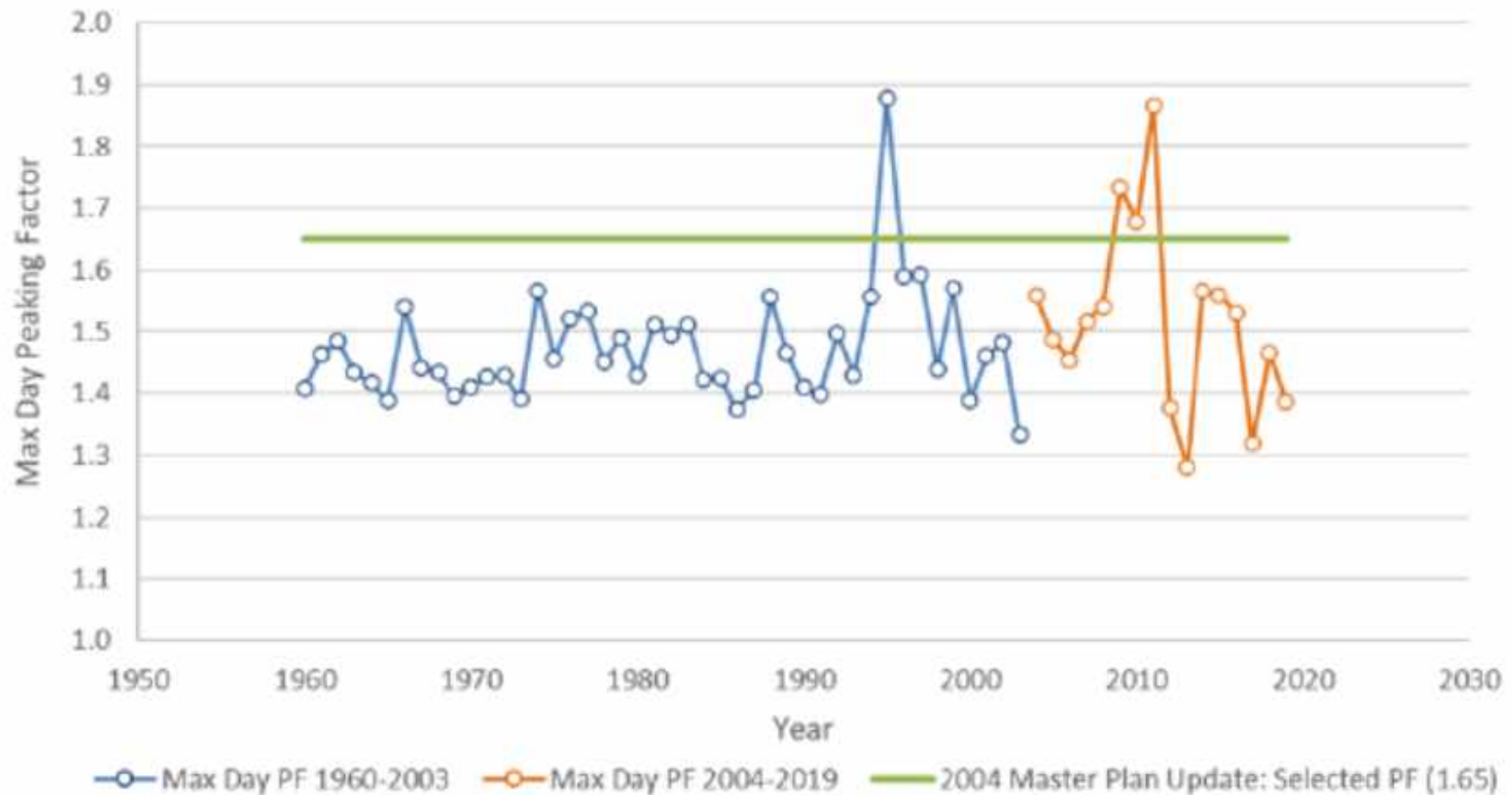
Graham's Demand Projections Use 165% Max Day Peaking Factor Based on Past Use in Drought Years



Mebane's Demand Projections Use 185% Max Day Peaking Factor Based on Past Use in Drought Years



Burlington's Maximum Day Peaking Factors Similar to Mebane's Even Though System is Larger

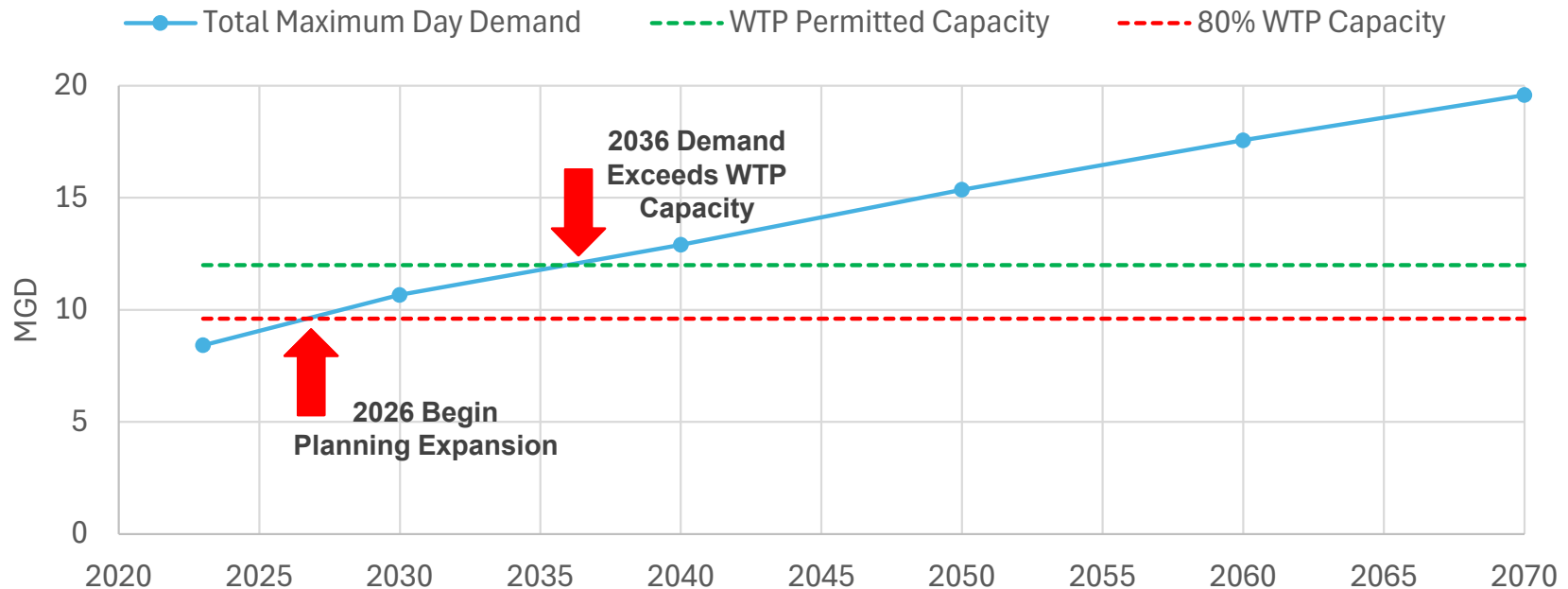


Revised Projections Make Total Max Day Demand Exceed 12 MGD Permitted WTP Capacity by 2036

Start Planning Expansion in 2026 When Max Day Hits 80% Capacity

		2023	2030	2040	2050	2060	2070
<u>Water Use -mgd:</u>							
Mebane Maximum Day Demand at	185%	3.826	5.082	6.225	7.353	8.530	9.731
Graham Maximum Day Demand at	165%	3.914	4.731	5.638	6.775	7.627	8.280
Total Maximum Day Demand - mgd		7.740	9.813	11.863	14.128	16.157	18.011
WTP Process Water at 8% - mgd		0.673	0.853	1.032	1.229	1.405	1.566
Total Raw Water Withdrawal - mgd		8.413	10.666	12.895	15.357	17.562	19.577
WTP Permitted Capacity		12	12	12	12	12	12
80% WTP Capacity		9.6	9.6	9.6	9.6	9.6	9.6

Total Maximum Day Demand and WTP Capacity

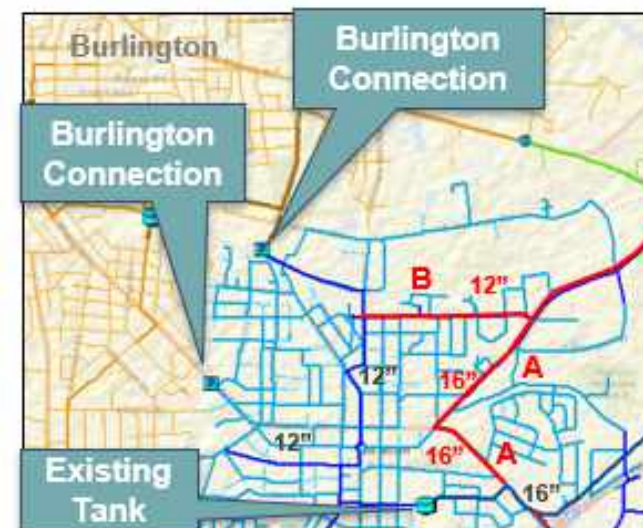


Need for Additional Water Treatment Plant Capacity Can Be Deferred by Conservation or Purchased Supply

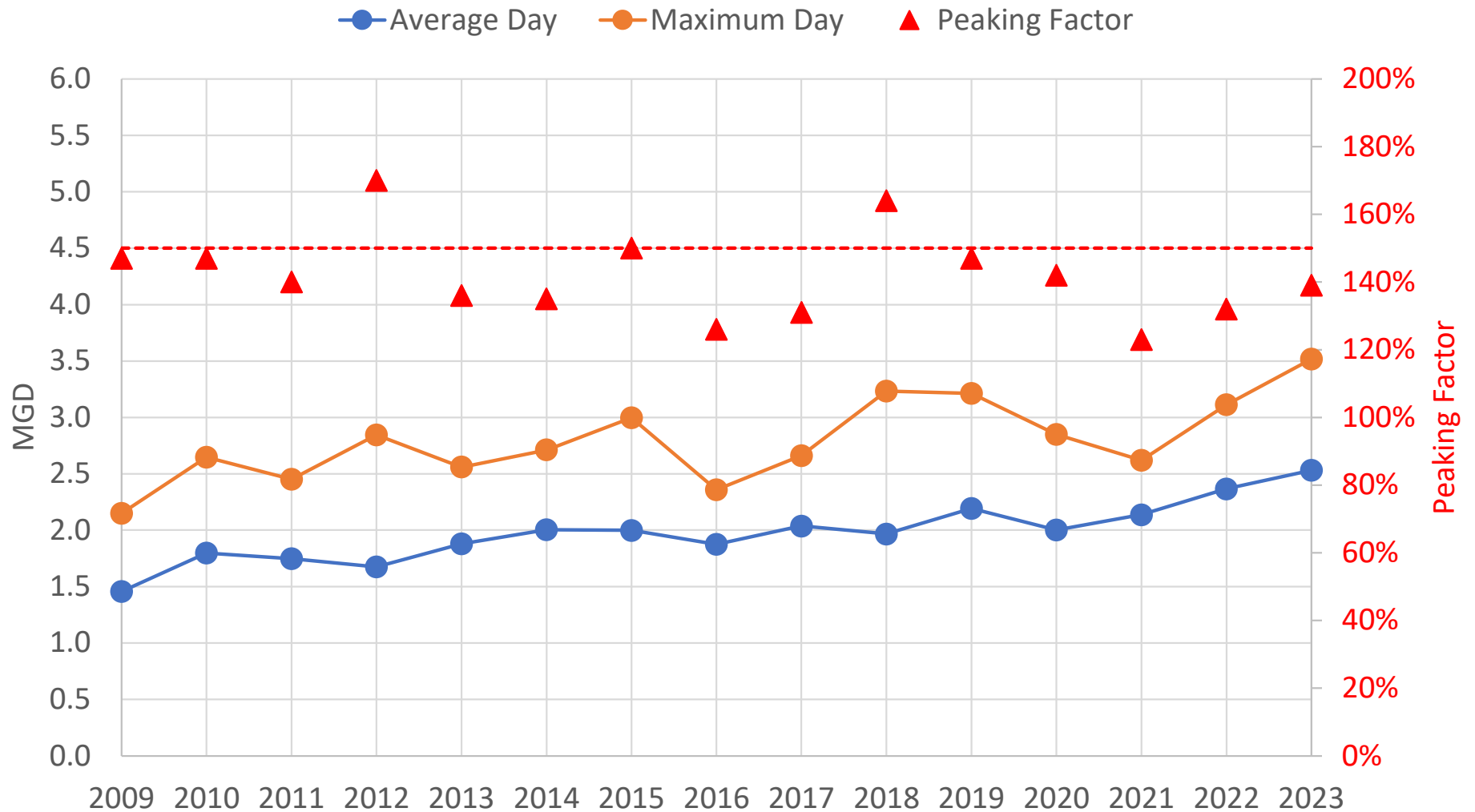
Enacting a conservation policy such as irrigating lawns on alternating days would reduce maximum day peaking factors



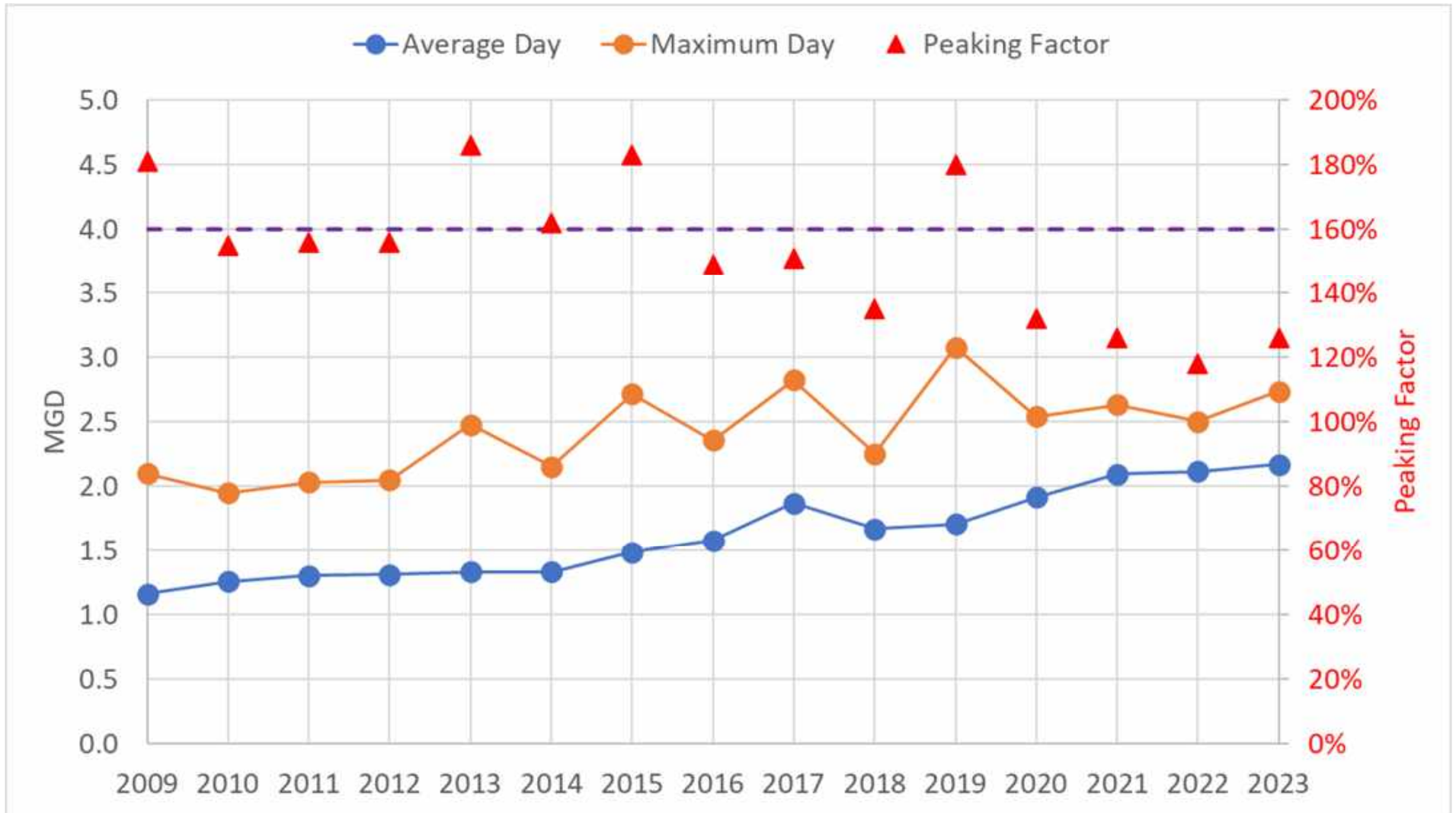
Purchasing finished water from Burlington would decrease needed supply from water plant



Conservation Could Limit Graham's Max Day Peaking Factor to 150%



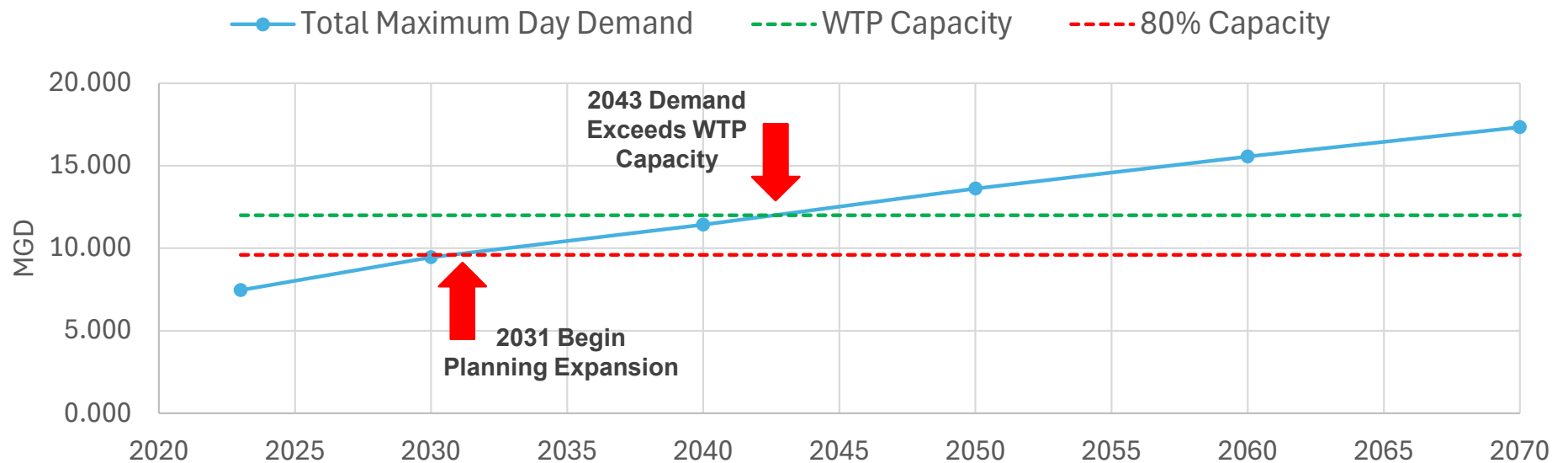
Conservation Could Limit Mebane's Max Day Peaking Factor to 160%



Conservation Policy in Drought Years Could Defer Plant Expansion by About 7 Years to 2043

		2023	2030	2040	2050	2060	2070
Water Use -mgd:							
Mebane Maximum Day Demand at	160%	3.309	4.395	5.384	6.359	7.377	8.416
Graham Maximum Day Demand at	150%	3.558	4.301	5.125	6.159	6.934	7.527
Total Maximum Day Demand		6.867	8.696	10.509	12.518	14.311	15.943
WTP Process Water at 8% - mgd		0.597	0.756	0.914	1.089	1.244	1.386
Total Raw Water Withdrawal - mgd		7.464	9.452	11.423	13.607	15.556	17.329
WTP Permitted Capacity		12	12	12	12	12	12
80% WTP Capacity		9.6	9.6	9.6	9.6	9.6	9.6

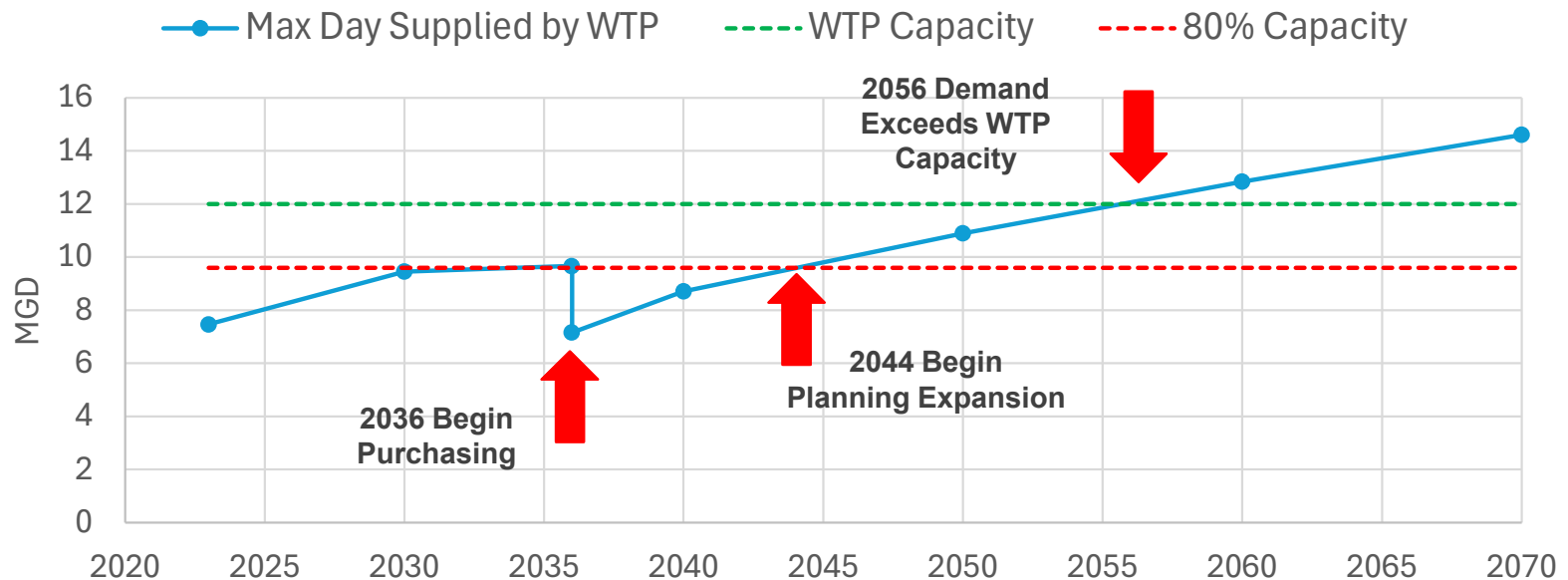
Maximum Day Demand with Conservation



Purchasing 2.5 mgd from Burlington and Conservation Defers Need for Plant Expansion Beyond 2044

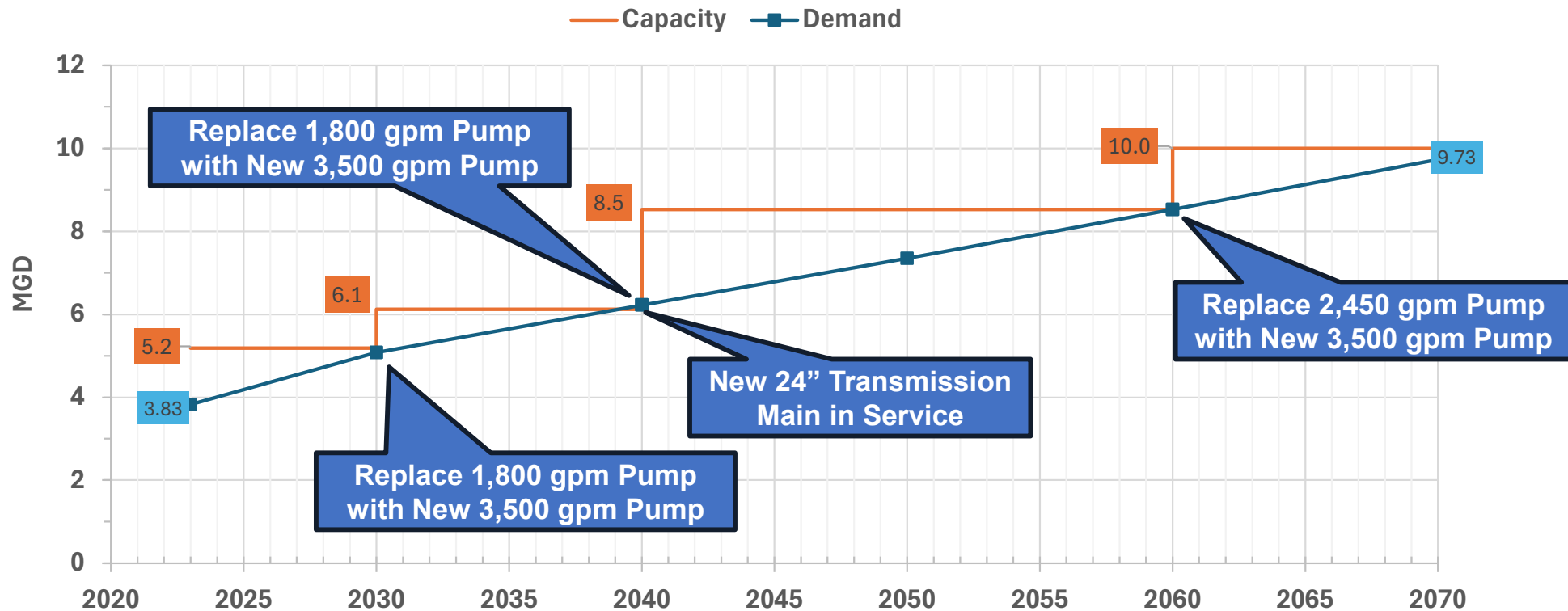
		2023	2030	2040	2050	2060	2070
<u>Water Use -mgd:</u>							
Mebane Maximum Day Demand at	160%	3.309	4.395	5.384	6.359	7.377	8.416
Graham Maximum Day Demand at	150%	3.558	4.301	5.125	6.159	6.934	7.527
Total Maximum Day Demand		6.867	8.696	10.509	12.518	14.311	15.943
Purchase From Burlington			0.00	-2.50	-2.50	-2.50	-2.50
Maximum Day Supplied from WTP		6.867	8.696	8.009	10.018	11.811	13.443
WTP Process Water at 8% - mgd		0.597	0.756	0.696	0.871	1.027	1.169
Total Raw Water Withdrawal - mgd		7.464	9.452	8.705	10.890	12.838	14.612
WTP Permitted Capacity		12	12	12	12	12	12
80% WTP Capacity		9.6	9.6	9.6	9.6	9.6	9.6

Maximum Day Demand with Conservation and Purchases



Mebane Finished Water Pump Capacity Must Keep Pace with Maximum Day Demand

Pump Capacity to Supply Maximum Day Demand from LWSP Projections



Topic 4: Timeline for Improvements For Mebane's Distribution System by 2050

	<u>Year</u>	<u>Maximum Day Demand mgd</u>
★ Complete New 1 MG Elevated Tank	<u>2025</u>	<u>4.18</u>
• Replace Existing 1,800 gpm Pump with New 3,500 gpm Pump	<u>2030</u>	<u>5.08</u>
• Replace Existing 1,800 gpm Pump with New 3,500 gpm Pump	<u>2040</u>	<u>6.23</u>
• 24-inch Pipe – Center St (US 70)	<u>2040</u>	<u>6.23</u>
★ 12-inch Pipe – Ninth St to Lebanon Rd	<u>2043</u>	<u>6.62</u>
★ 16-inch Pipe – First St & Holt St to Eleventh St	<u>2043</u>	<u>6.62</u>

Last two improvements can be installed in 2043 to defer costs after installation of the 24-inch pipe.

- Improvements driven by Maximum Day Demands
 - ★ Improvements driven by Fire Flows



January 12, 2024

To: Tonya Mann, PE, Utilities Director, City of Graham, NC

From: Reed Palmer, PE, Senior Associate, Hazen and Sawyer
Yoko Koyama, EI, Assistant Engineer, Hazen and Sawyer
John Clayton, PE, Senior Associate, Hazen and Sawyer
Steven Nebiker, PE, Senior Associate, Hazen and Sawyer

cc: Aaron Babson, PE, Associate Vice President. Hazen and Sawyer
Jeff Cruickshank, PE, Associate Vice President. Hazen and Sawyer

Graham/Mebane Safe Yield Modeling



EXHIBIT H



Table of Contents

1. Introduction	3
2. Basic Introduction to Reservoir Modeling.....	4
3. Bathymetric Survey & Sedimentation Rates	6
3.1 Bathymetric Survey of Graham-Mebane Lake	6
3.2 Survey Results.....	8
3.3 Sedimentation Rate Findings.....	10
4. OASIS Model & Modeling Assumptions.....	12
4.1 Reservoir SAE Relationship	13
4.2 Lake Inflow Estimation.....	13
5. Results.....	20
6. Conclusions and Recommendations	26
Appendix A.....	A-1
Appendix B.....	B-1



1. Introduction

The Triangle and Triad Regions of North Carolina are experiencing accelerated growth, necessitating the adaptation of their water supply infrastructure to meet expanding demands. It is essential for the City of Graham's water supply to stay ahead of this growth and in control of its water supply future. Doing so requires a comprehensive understanding of the safe yield of Graham-Mebane Lake.

The safe yield of the reservoir, in conjunction with the service area demand forecast, will significantly influence the City's ability to obtain permits for expanding its water treatment plant (WTP). Determining the permissible size of the WTP and projecting demand growth will play a pivotal role in identifying the appropriate timing and location for expanding the distribution system. Additionally, it will determine whether the City needs to reinforce its supply system by expanding purchase contracts from neighboring utilities.

Graham-Mebane Lake currently serves as the drinking water source for a population of approximately 40,000 in the towns of Graham and Mebane. To ensure a sustainable water supply, the City of Graham selected Hazen and Sawyer to conduct a Reservoir Water Supply Study to assess supply reliability. The study included a hydrographic survey the reservoir.

2. Basic Introduction to Reservoir Modeling

The Cape-Fear Neuse River basin Hydrologic Model using OASIS software was used to evaluate the safe yield of the Graham-Mebane Reservoir. Hydrologic models like OASIS are mass balance models that track the movement of water along stream and river networks and in and out of reservoirs. Figure 2-1 shows the mass balance components for a typical reservoir like Graham-Mebane Lake. This diagram shows the volumetric units in million gallons (MG) and flow in million gallons per day (MGD).

Components include:

- Storage, S_t and S_{t-1} : the amount of water stored in the Graham-Mebane Lake at the end of day t or the previous day, $t-1$
- Inflows, I_t : the amount of surface water runoff into the lake during day t
- Net evaporation loss, L_t : the difference between the amount of evaporation from and precipitation onto the lake during day t
- Flow out of reservoir, O_t : during day t , any minimum releases when the lake is below full and any spills when the lake is full
- Demand, D_t : the amount of raw water withdrawn through the intake for drinking water supply on during day t

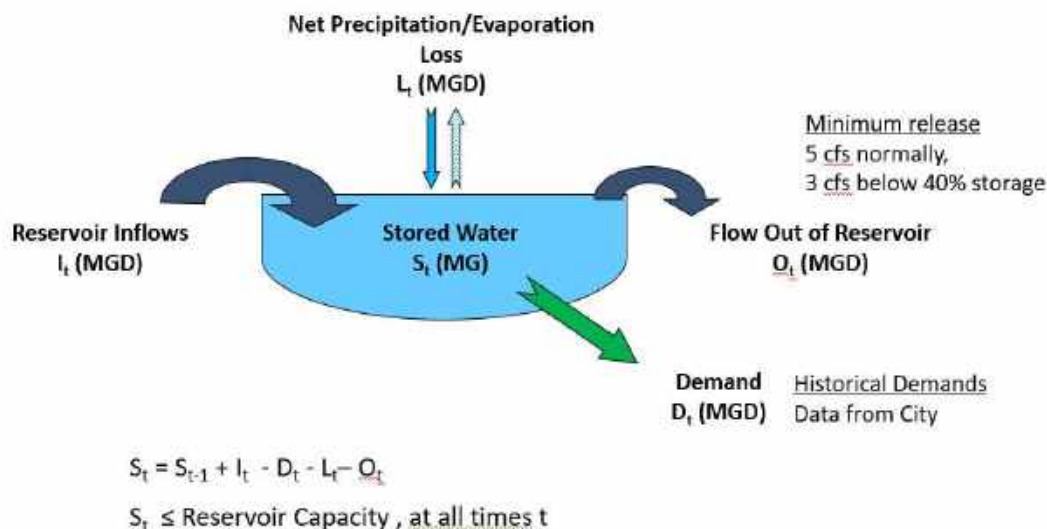


Figure 2-1: Basic Reservoir Storage Modeling.

The resulting final equation for the mass balance model is:

Equation 2-1

$$S_t = S_{t-1} + I_t - D_t - L_t - O_t$$

Together with a mathematical relationship between reservoir storage, surface area, and elevation (SAE), storage can be translated into reservoir elevation and surface area.

The key to accurately simulating the water level in such a mass balance model is the data quality of each component in the equation shown in Equation 2-1. Accuracy in the storage component of the model was improved via the hydrographic survey that was conducted at the beginning of this study and is described in detail in Section 3. However, the greatest uncertainty in hydrologic mass balance models is typically in the inflow portion of the equation. A significant effort went into arriving at an accurate facsimile of inflow to the reservoir. Streamflow gages are often not located in close proximity to reservoirs, so estimates need to be made. These are tested through the process of inflow verification which is described in Section 4.

3. Bathymetric Survey & Sedimentation Rates

A proper hydrographic survey will serve two main goals in estimating an accurate safe yield for Graham-Mebane Lake, which are:

1. Provide an accurate estimate of the accessible storage volume in the lake – a key parameter for the reservoir model
2. Allow estimation of the average sedimentation rate by comparing this survey with prior reservoir volume estimates: This is important for estimating the safe yield decades into the future

To serve the above goals, the bathymetric (underwater) portion of the survey employed *echosound technology* by Stewart Inc. A combination of conventional on-the-ground and aerial survey techniques was utilized to capture areas above the water line. The survey took place during the winter when leaves were off the trees, providing a better view of the ground from the air and enhancing accuracy. A complete hydrographic contour map of the reservoir and its littoral boundaries with 2-foot contours was developed following the survey.

3.1 Bathymetric Survey of Graham-Mebane Lake

The reservoir survey involved a comprehensive survey covered the lake floor and surrounding areas up to the 535-foot contour line. The study utilized bathymetric and aerial surveys, as well as data from North Carolina's Spatial Data Download Program. The survey equipment included single beam and dual-frequency echosounders linked with GPS receivers, as well as lidar and photogrammetric sensors on crewed aircraft. Data collection involved mapping the lake perimeter using aerial data and confirming it in the field, collecting underwater and sediment depth points at specified intervals, and investigating stream features. Data processing and mapping were performed using AutoCad Civil 3D to create contour and volume data for the underwater and adjacent terrestrial surfaces.

The survey results provided information on the project area, top of dam elevation, normal pool level, lake surface area, lake volume, and sediment volume. Quality control measures were implemented throughout the project, including multiple observations on control points, evaluation of results from different equipment types, and independent review of calculations. The deliverables for the project included CAD survey drawings, a point database, CAD surface TIN, a stage-storage-surface area curve, and heat maps of water and sediment depths and a brief technical memorandum.

The survey techniques and methods used in the project adhered to contract specifications and regulations outlined in the North Carolina Administrative Code. The bathymetric data collection techniques followed guidelines published by the US Army Corps of Engineers in EM 1110-2-1003 – Hydrographic Surveying Standards.

The surveyed area included the lake indicated by the lake border and supplemental study areas denoted by boxes in Figure 3-1. Data from the Civil 3D volume processing was used to populate a spreadsheet with

reservoir volume and reservoir surface area at one-foot intervals. The vertical datum used for all data was NAVD 88 and horizontal datum used was NAD83. A separate dataset was developed specifically for the lake area north of the “Old Dam”, which was submerged upon construction of the current dam. The old dam crest is at 519’ elevation. The volume retained upstream of the “Old Dam” and below 519’ elevation was recorded as 97 MG. The survey of the Graham-Mebane Lake was conducted in early 2023 and the detailed report is included as Appendix A.

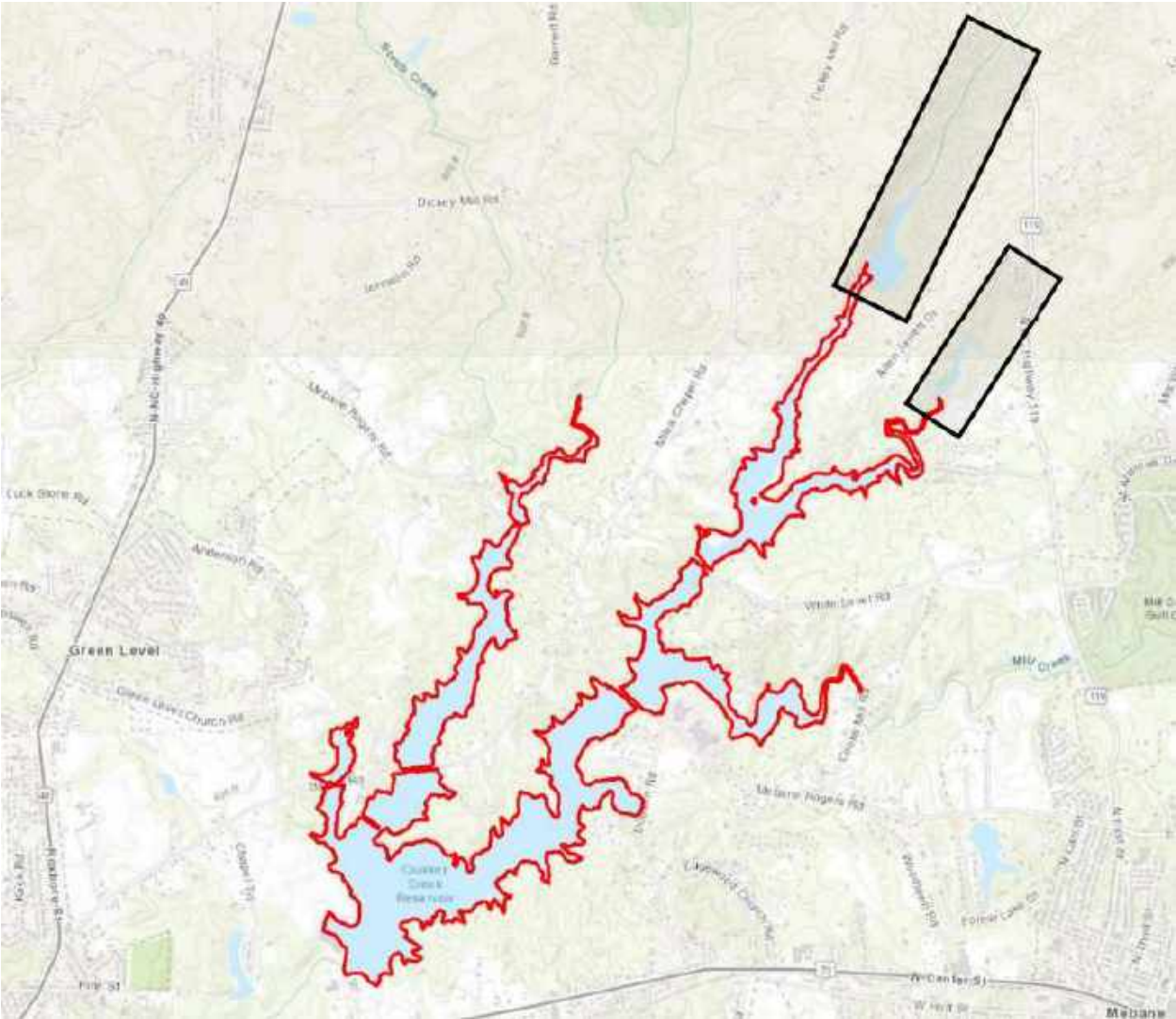


Figure 3-1: Focus Areas for the Graham-Mebane Lake Bathymetric Survey.

3.2 Survey Results

The drainage area of the Graham-Mebane Lake was found to be 66 mi² via watershed delineation completed using USGS Streamstats Version 4. The area map of the watershed draining to Graham-Mebane Lake is shown below in Figure 3-2.

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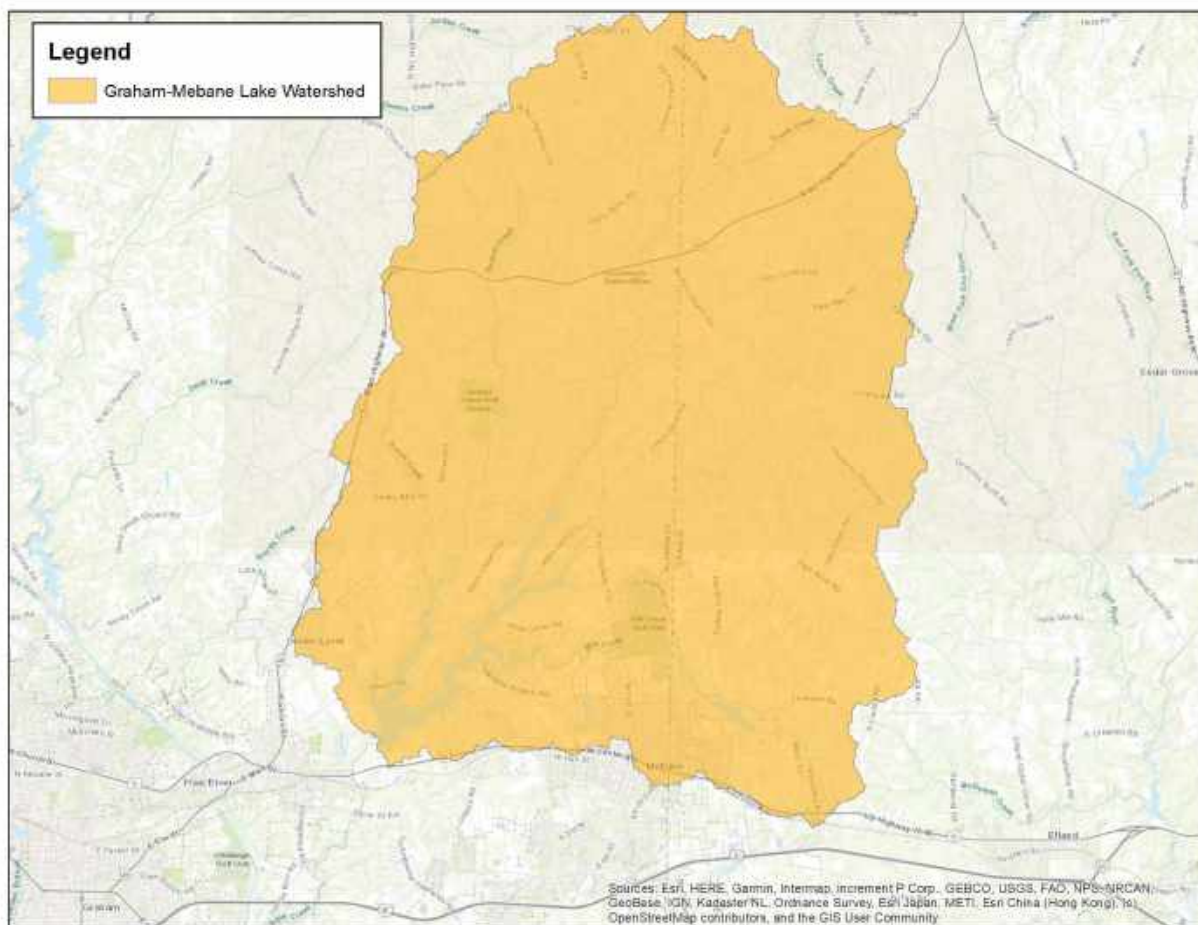


Figure 3-2: Watershed area of Graham-Mebane Lake.

A storage-area-curve (SAE) was developed from the survey results and presented in Figure 3-3. In Figure 3-3, the old SAE curve from the Arcadis study (2008) is also presented for comparison. The previous SAE curve included in the Arcadis study did not indicate any accounting for the inaccessible area/volume below the elevation of the Old Dam. In this study, the volume of the storage that is not accessible due to the old dam has been removed from the storage curve. The area that is upstream of the old dam is illustrated in Figure 3-4.

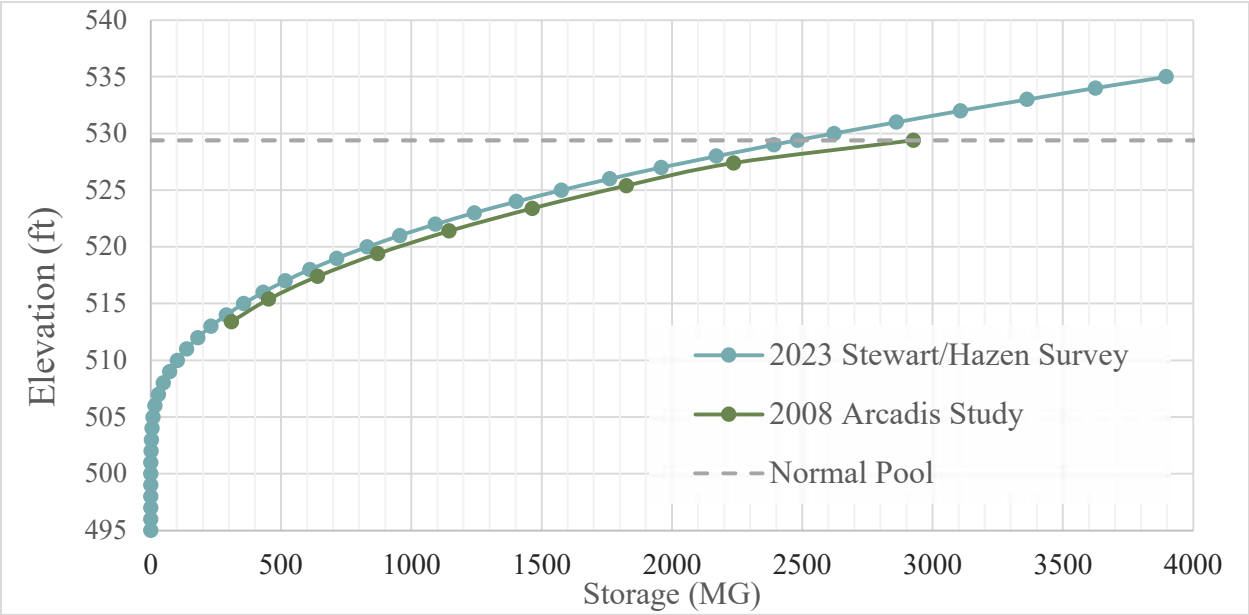


Figure 3-3: Storage-Area-Elevation (SAE) curve

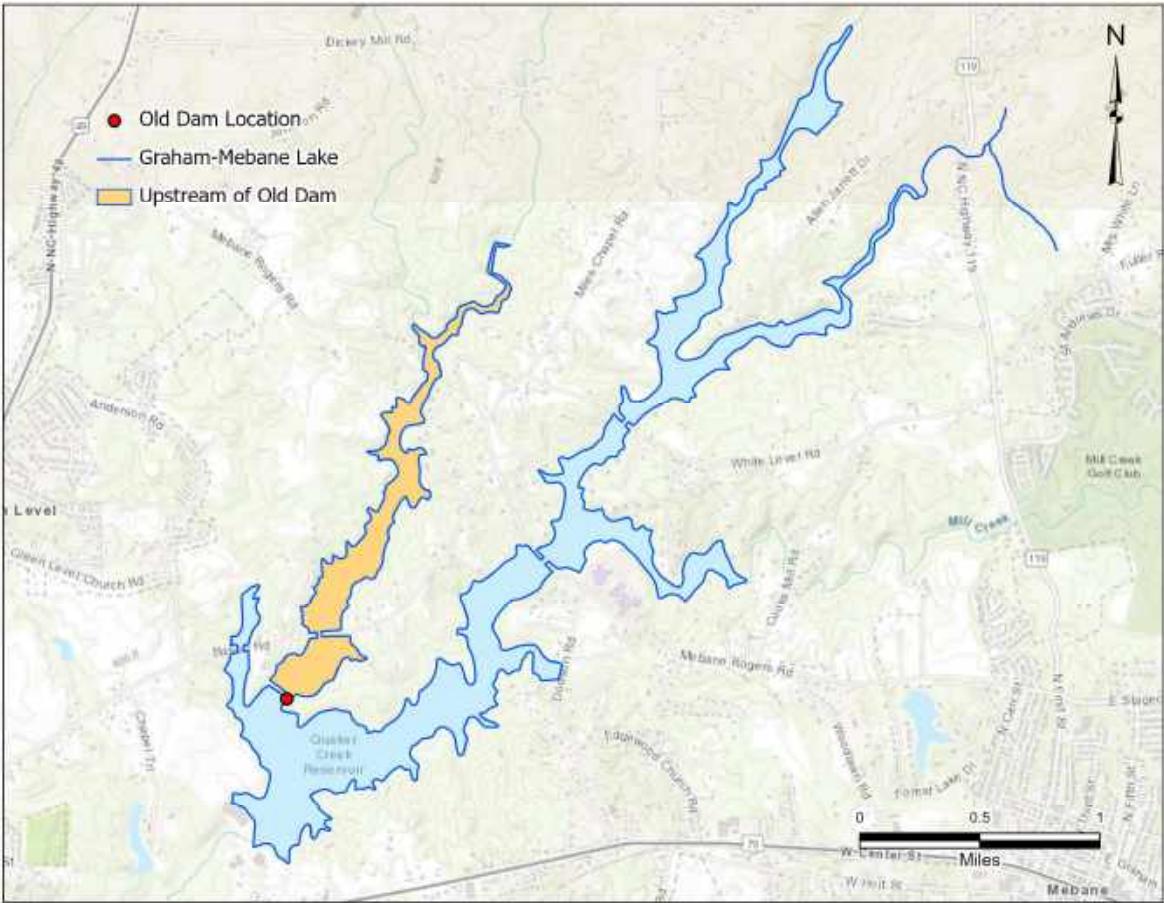


Figure 3-4: Graham-Mebane Lake Areas Upstream and Downstream of Old Dam

3.3 Sedimentation Rate Findings

Sedimentation transportation and deposition is a natural process in most water bodies but has a deleterious impact on most reservoirs because the decreased water velocities within reservoirs allows much of the sediment load from tributaries to accumulate and displace volume intended to store water.

Table 3-1 Summary of reservoir storage findings

Property	Value
Back-calculated Pre-impoundment Storage Estimate	2926 MG
2023 Survey Total Storage	2499 MG
Drainage Area of Reservoir	66.1 sq. miles

Sedimentation rates were calculated via three methods. The first method used the difference in storage between the pre-impoundment storage estimate and the hydrographic survey done as part of this study. It results in a high calculated value of the sediment accumulation rate. The second and third methods employed the estimated volume of sediment on the bottom of the lake based on the recent hydrographic survey. Details on the three methods can be found in Appendix B.

Table 3-2: Summary of Sedimentation Rate Calculations

Property	Value
Elapsed time since impoundment	29 -47 years
Implied Lost Storage from Post & Pre-impoundment studies	427 MG (1306 AF)
Implied Sedimentation Rate from Post & Pre-impoundment studies (first method, Appendix B)	0.41 – 0.71 AF/yr/sq. mi.
Sediment Volume from dual frequency hydrographic survey	572,318 cubic yards or 355 acre-feet (AF) or 116 MG
Implied Sedimentation Rate from (second method, Appendix B)	0.11~0.19 AF/yr/sq. mi.
Implied Sedimentation Rate from (third method, Appendix B)	0.16 AF/yr/sq. mi

Prior experience as well as a comparison of the calculated sedimentation rates to available literature values (Figure 3-5) led us to conclude that the second and third methods are more representative of the ongoing sediment deposition process in the lake. The range in methods 1 and 2 as shown on Figure 3-5 represent an assumption that the sediment accumulated over a 47 year period (lower bound) or 29 year period (upper bound). Since the area upstream of the Old Dam has been impounded for 47 years and the remainder of the reservoir for the last 29 years, the overall sedimentation rate is between these bounds and for Method 2, a uniform sedimentation rate would be 0.16 AF/year/mi².

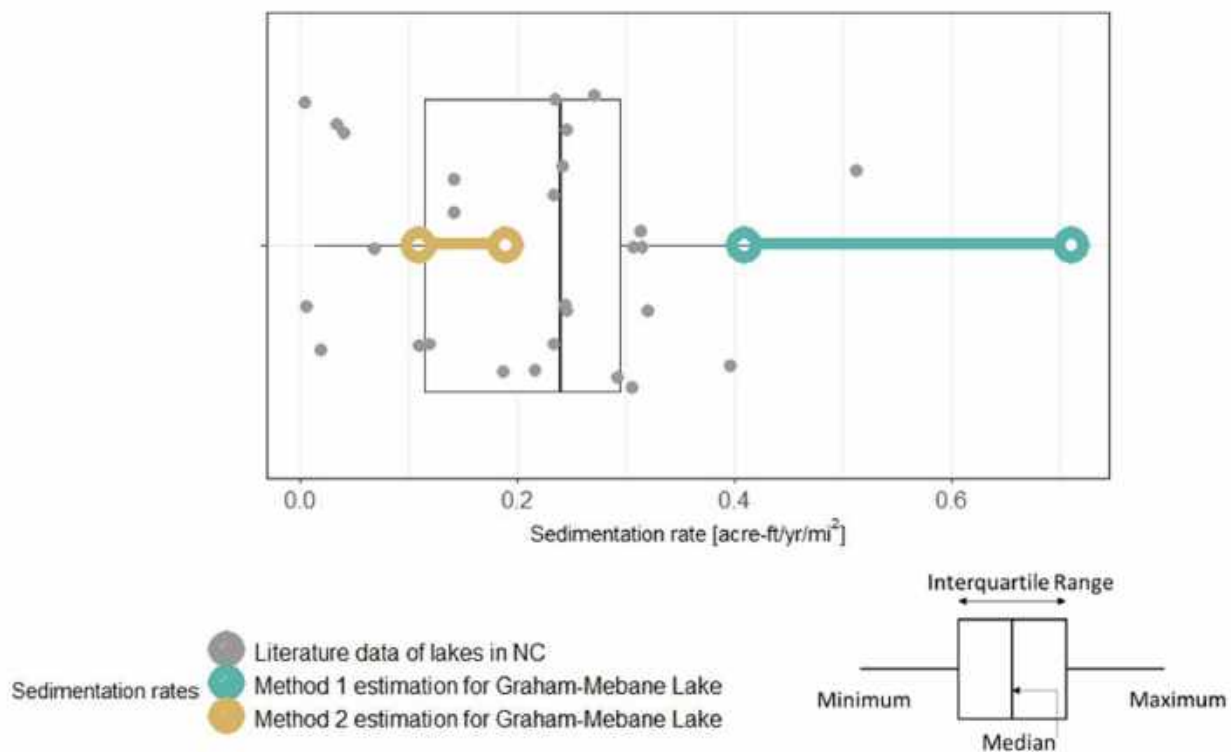


Figure 3-5: Comparisons of Three Sedimentation Methods Calculations to Typical Regional Sedimentation Rates¹

¹ Anna J. Petryniak and Apple B. Loveless, “B. Everett Jordan Dam Sedimentation Rates and Reservoir Capacity”, Duke University – Nicholas Institute for Environmental Policy Solutions (June 2013).

4. OASIS Model & Modeling Assumptions

The safe yield analysis utilized the Cape Fear/Neuse OASIS model developed by Hazen in 2010 for the NC Division of Water Resources to help with basin-wide planning (Figure 4-1). This model simulates streams, rivers, and reservoir and other water management operations throughout the basin based on naturalized inflow observations and estimates spanning from January 1, 1930 to September 30, 2020, or roughly 90 years. Hazen updated the portions of the model related to Graham-Mebane Lake (Figure 4-2) to incorporate the new SAE information and updated lake inflows based on model validation specific to Graham Mebane Lake.

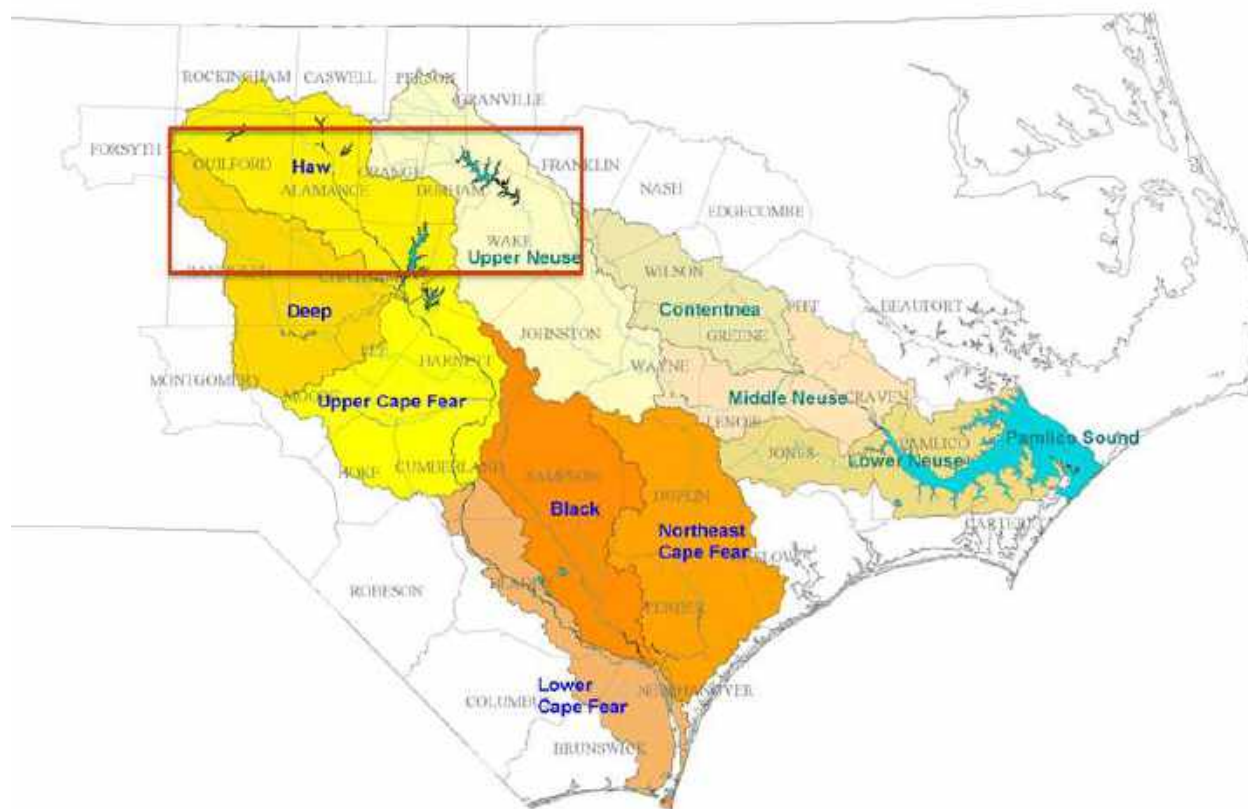


Figure 4-1: The Cape Fear/Neuse OASIS Model (Basins Shown Without Schematic Detail). Box Shows Extent of Detail Map in Figure 4-2.



Figure 4-2: Schematic Detail in Region Surrounding Graham-Mebane Lake with Nodes Relevant to Safe Yield Study.

4.1 Reservoir SAE Relationship

Updates to the reservoir SAE curve incorporated the bathymetry work from this study provided in Figure 3-3. The total storage volume at the normal pool elevation of the reservoir, 529.4 ft, is 2481 MG. However, the accessible (i.e. usable) storage volume is marginally less than this total volume. Figure 4-3 calls out the invert elevations of intake gate #2 and intake gate #3 on the 1973 Piatt drawing set for the Raw Water Pump Station (Sheet GM / 114). Figure 4-4 shows the intake depths for intakes 2 and 3 within context of the new SAE curve. The usable storage at full pool is approximately 2475 MG assuming Intake #3 is used for withdrawals. About 2300 MG can be accessed via Intake Gate #2. For the safe yield estimates, we have assumed that the 175 MG below Gate #2 would be held in reserve. In other words, the model is only drawing the reservoir down to the bottom of Gate #2 when determining the safe yield.

4.2 Lake Inflow Estimation

The Graham-Mebane Lake inflows contained in the original Cape Fear/Neuse Model were originally developed in 2004 as part of original model development and were subsequently updated in 2011. At that time no precise information on reservoir elevation and withdrawals was available. Historical lake elevation data were made available for the current safe yield study, allowing a more informed estimate of lake inflows to be developed.

Ideally, lake inflow estimates would be based on stream discharge at gages within the lake's upstream drainage area. Since no such stations exist, inflows had to be estimated using flow records for nearby

gages outside the lake drainage area. Inflow time series estimates were calculated from these flow records using drainage area ratios:

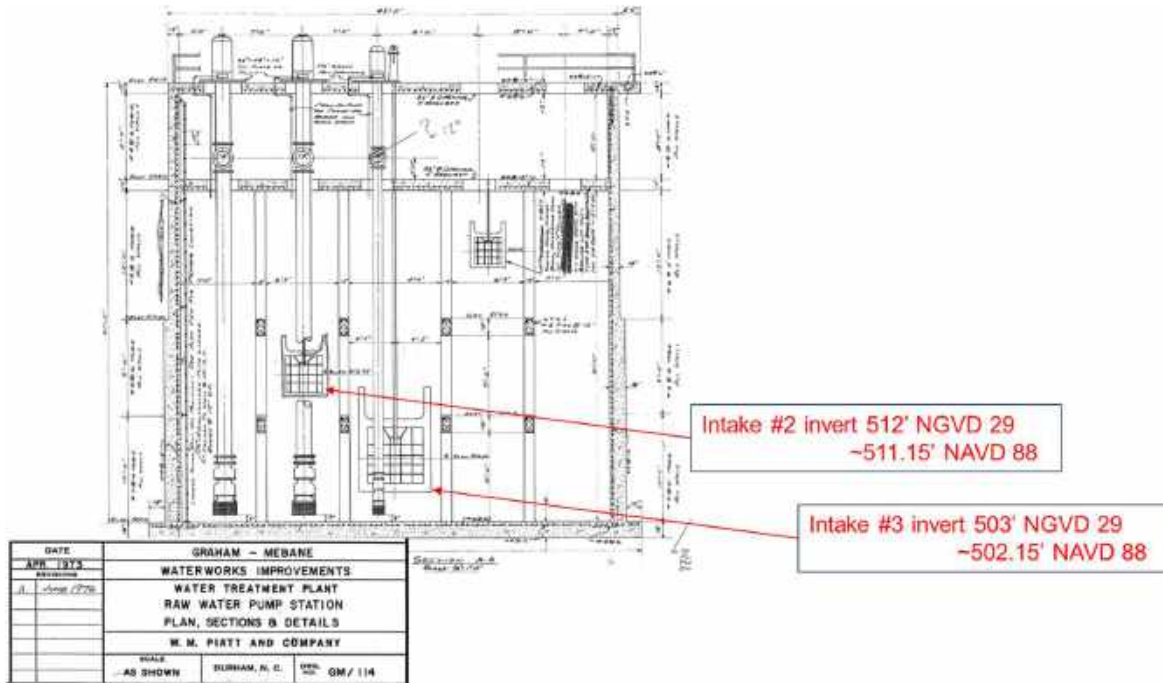


Figure 4-3: Elevations of Middle and Lower Intakes.

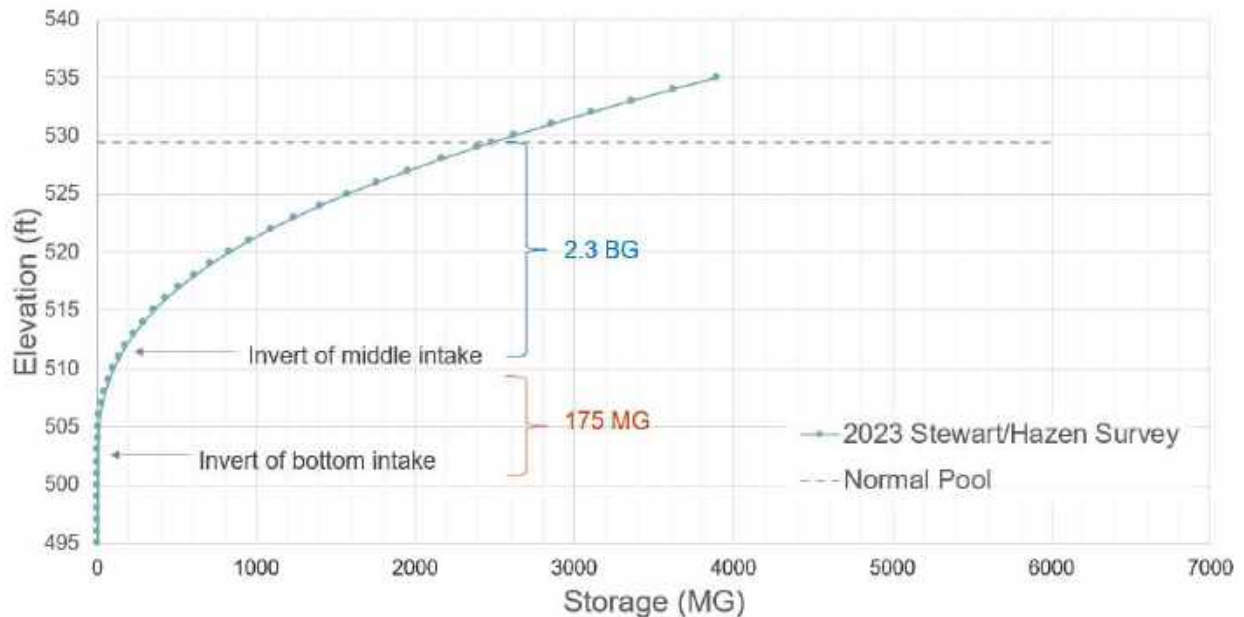


Figure 4-4: Elevations of Normal Pool and Middle and Lower Intakes Within Context of the New SAE Curve.

Equation4-1

$$I_t = Q_{gage,t} \times \frac{A_{lake}}{A_{gage}}$$

where I_t is lake inflow on day t , $Q_{gage,t}$ is flow on day t at the reference gage, and A_{lake} and A_{gage} are the watershed areas upstream of the dam and reference gage, respectively. Four reference data sets were identified as potential references (Table 4-1, Figure 4-5) including

- “Haw River” option: Haw River flow at Haw River, NC (USGS gage 02906500)
- “Haw River to Bynum Gain” option: Incremental flow between Haw River at Haw River, NC and Haw River at Bynum, NC (02096960) / Haw River at Pittsboro (02097000)
- “Cane Creek” option: Cane Creek flow near Orange Grove, NC (02096846)
- “Reedy Fork” option: Reedy Fork flow near Gibsonville, NC (02094500)

The suitability of each was then assessed by a verification exercise. Given the period of observed lake elevations (Figure 4-6), OASIS was used to simulate elevations over that same time period using each inflow series in turn. Simulated elevations from each inflow assumption were then compared to observed elevations. Each simulation was performed with assumptions of

- Estimated inflows based on one of the reference gages
- Withdrawals equal to historic observations (only available since 2003)
- Dam releases set at minimum required rates (since controlled-release data are generally not available) when the water elevation is below the top of the dam
- Spill releases of any storage that would otherwise bring reservoir storage over maximum capacity

The verification period was limited to 2009-present as this was the period over which elevation observations (which were not reported every day) were mostly available (Figure 4-6).

Figure 4-7 through Figure 4-10 show verification results from the four inflow options. In each figure, observed and simulated elevations are plotted for comparison.

- The Haw River option (Figure 4-7) consistently underpredicted the degree of drawdown during dry periods.
- The Haw River to Bynum Gain (Figure 4-8) and Reedy Fork (Figure 4-9) options both occasionally overpredicted and underpredicted drawdown. For the 2007 drought, the Haw River to Bynum Gain and Reedy Fork options respectively under- and overpredicted drawdown by approximately the same amounts. In the 2018 drought, the Haw River to Bynum Gain option elevations matched observations well while the Reedy Fork option overpredicted drawdown. These two options were considered the best performers.
- The Cane Creek option (Figure 4-10) consistently overpredicted drawdown during dry periods.

Table 4-1: Reference Gage Candidates for Estimating Lake Inflows

Gage Name (USGS ID)	Drainage Area (sq mi)	Period of Record	Comment
Haw River at Haw River, NC (02096500)	606	1928-present	Regulation from upstream reservoirs
Incremental flow between Haw River at Haw River, NC and Haw River at Bynum, NC (02096960) / Haw River at Pittsboro (02097000)	704 (incremental) using Pittsboro location	1973-present for the Bynum gage (1930 to 1973 for the Pittsboro gage)	Little regulation within incremental drainage area
Cane Creek near Orange Grove (02096846)	7.5	1988-present	No regulation, but limited period of record
Reedy Fork near Gibsonville (02094500)	131	1928-present	Regulation from upstream reservoirs

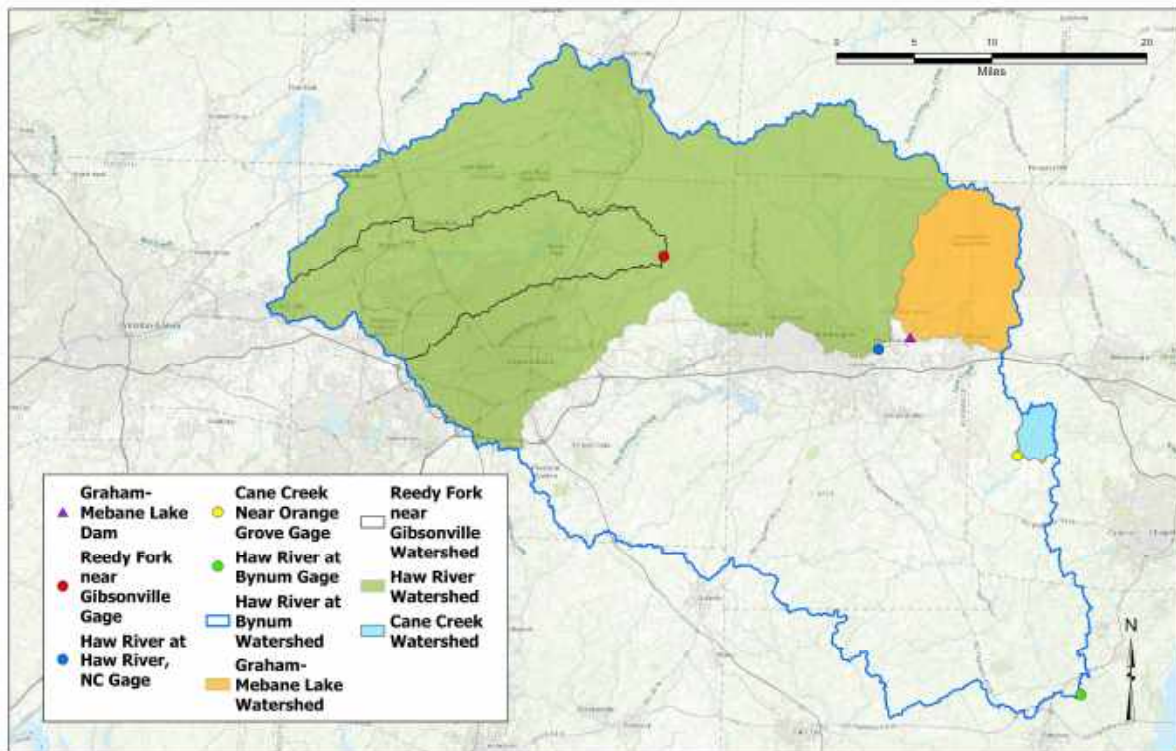


Figure 4-5: Map of Reference Gage Candidates and Watersheds for Estimating Lake Inflows

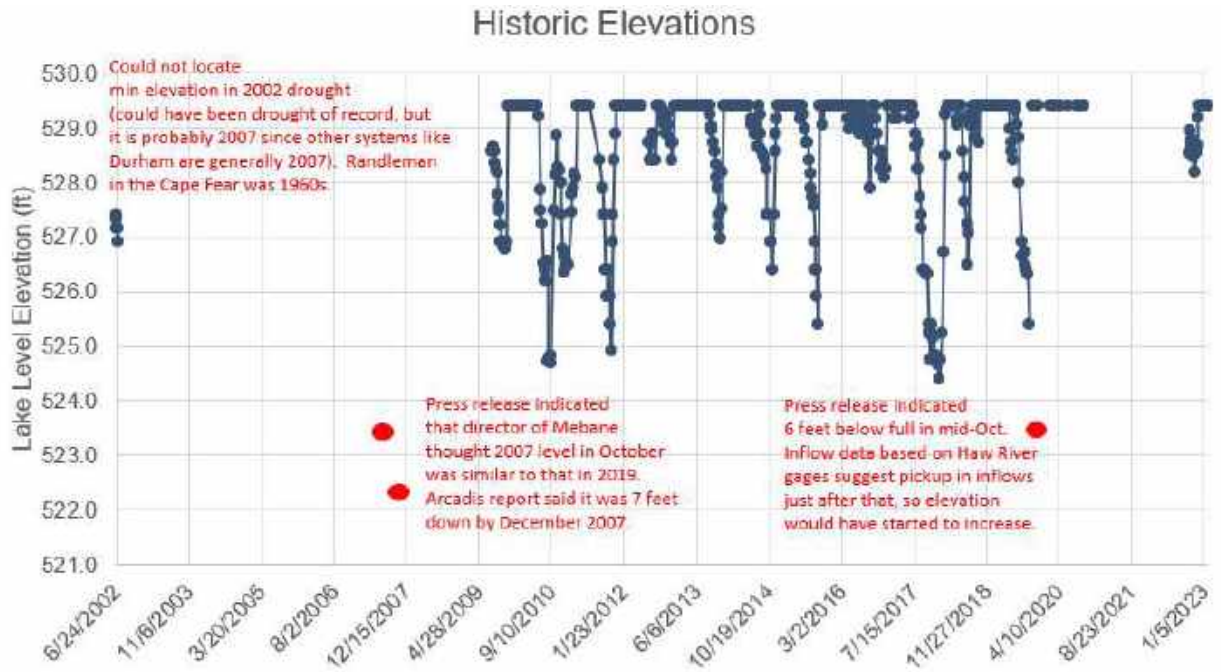


Figure 4-6: Historic Lake Level Observations (blue) and Estimates from Anecdotal Evidence (red).



Figure 4-7: Verification Test Using Inflows Based on Haw River Gage @ Haw River, NC

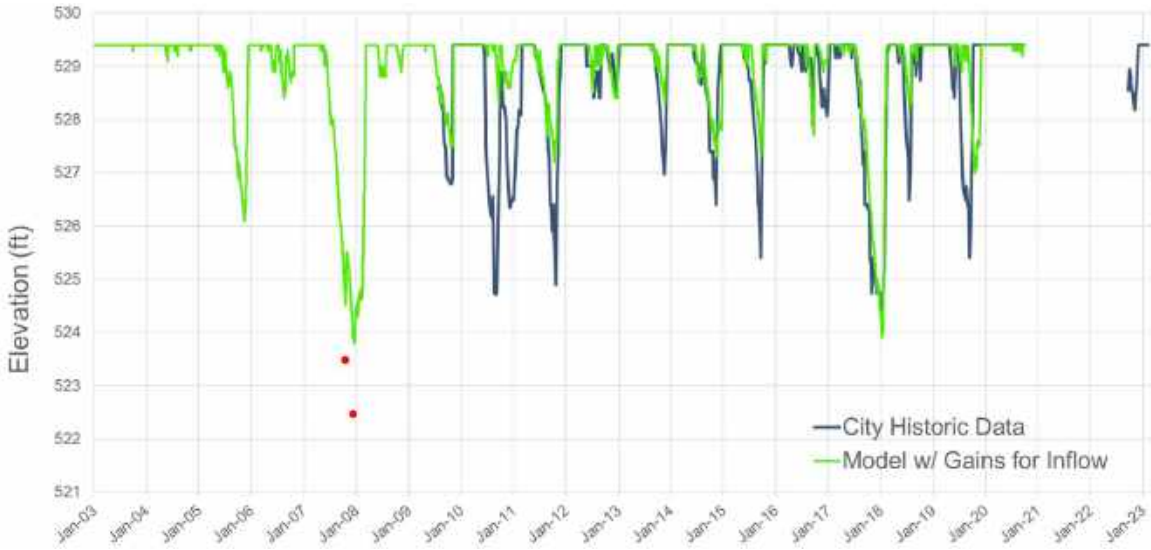


Figure 4-8: Verification Test Using Haw River Gage to Bynum Gage Gain for Inflows

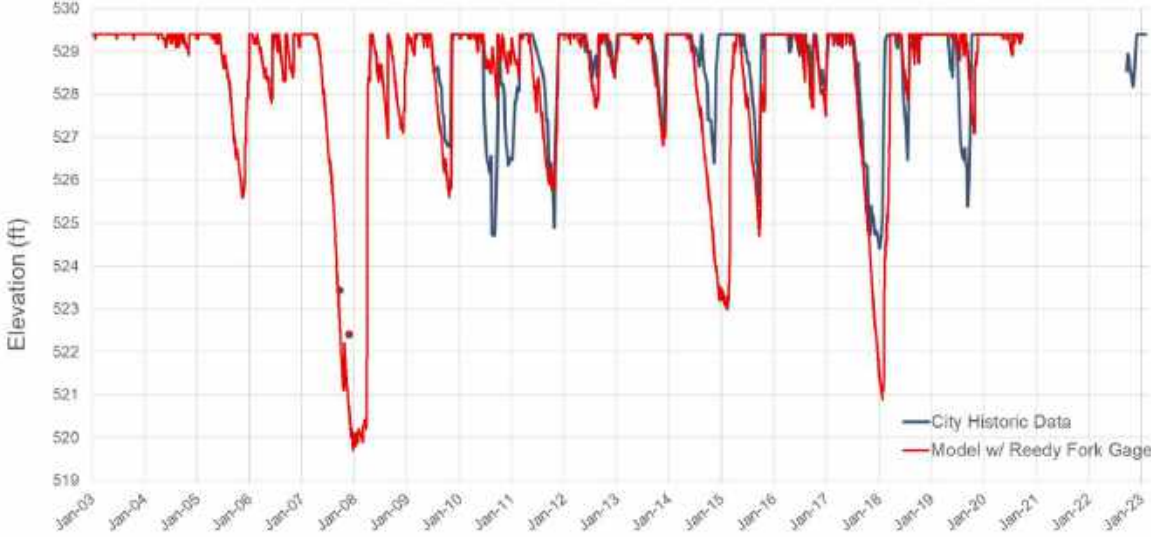


Figure 4-9: Verification Test Using Inflows Based on Reedy Fork Gage

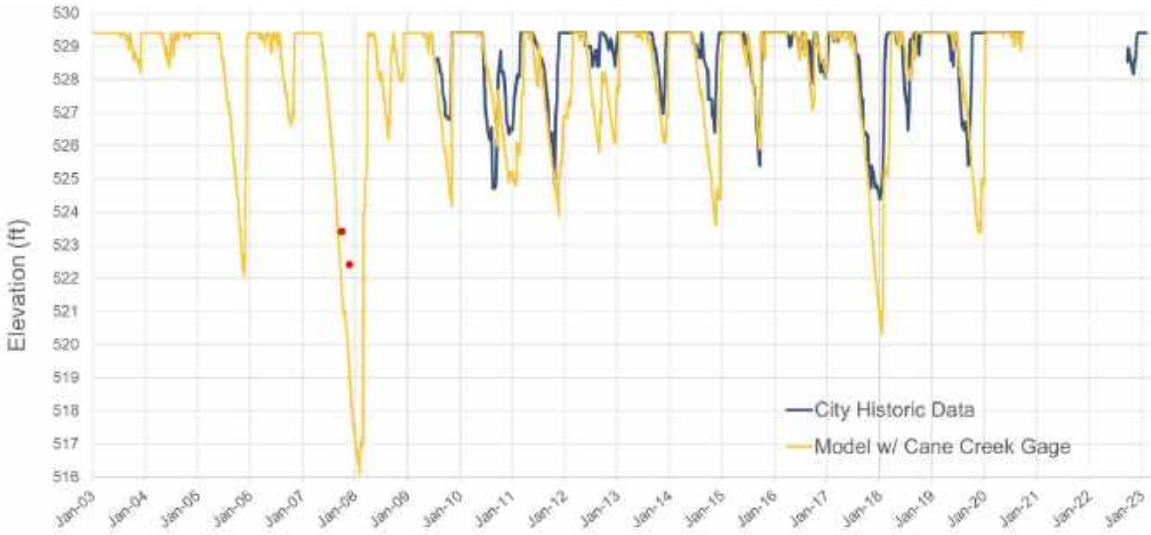


Figure 4-10: Verification Test Using Inflows Based on Cane Creek Gage

It was ultimately decided to adopt the Haw River to Bynum Gain option over the Reedy Fork option. The watershed upstream of the Reedy Fork gage contained significant reservoir regulation which disrupts the flow patterns at the downstream gage. While these same regulations impact Haw River and Bynum gages, reservoir regulations in the drainage area between the two are much smaller than above Reedy Fork gage. The most significant regulation signals in Haw River and Bynum gage flow data conceptually “cancel”, or offset one another, when calculating the incremental flow difference between the gages, thereby better representing an unimpaired inflow pattern as should be expected in the lake’s drainage area. Thus, inflows based on the Haw River to Bynum Gain option were adopted for the remainder of the study.

5. Results

The general safe yield analysis procedure was as follows:

- First, use the Graham-Mebane Lake inflows over the 90-year period with estimates based on the “Haw River to Bynum Gain” method
- Execute the model over the 90-year period multiple times, incrementally increasing simulated withdrawals from Graham-Mebane Lake until, at some point in the 90-year record, simulated usable lake storage is depleted to the bottom of Gate #2.

The demand producing that storage exhaustion condition is then considered the safe yield. A monthly demand pattern was included to capture the typical variation in demand throughout the year. Note the local water shortage response plan for the utility – which would result in demand reductions as storage triggers are reached during reservoir drawdown-- is not simulated for safe yield evaluation. Also, to be conservative, it was assumed that water treatment process water (like filter backwash) was not counted towards meeting the minimum release requirements. However, in practice the process return flows go back to the river where the minimum flows are required and the City should get credit for those return flows.

New inflow estimates. Inflow estimates for Graham-Mebane Lake (node 320 in Figure 4-2) were produced by applying Equation 4-1 with drainage areas for the lake watershed (66.1 sq. mi., see Table 3-1) and the incremental stream reach between Haw River and Bynum/Pittsboro gages (704 sq. mi., see Table 4-1) to incremental inflow estimates for Bynum/Pittsboro gage within the Cape Fear-Neuse model inputs (node 400 in Figure 4-2). Note the Bynum gage only became operational in 1973. Prior to this, the nearby Pittsboro gage was active. For the inflow estimate, we combined the records to form a continuous record from 1930 to present representing the flow at the old Pittsboro gage location (meaning when Bynum flows were available, they were scaled up by the drainage area ratio to the Pittsboro location (1310 sq.mi at Pittsboro location /1275 sq.mi at the Bynum location). The resulting incremental drainage area between the upstream Haw River gage and the Pittsboro gage location is 1310 – 606 = 704 sq.mi.

Equation 5-1

$$(\text{Graham Mebane Inflow})_t = (\text{Incremental Bynum/Pittsboro Inflow})_t \times \frac{66.1}{704}$$

where t represents days from January 1, 1930 to September 30, 2020.

Determination of Safe Yield. System reliability was evaluated by running the full 90-year simulation with different levels of demand from Graham-Mebane Lake (node 321 in Figure 4-2) while enforcing minimum flow releases from the lake. Figure 5-1 shows percent of usable storage remaining versus time for assumed annual average demands of 4.1, 6.5, and 8.5 MGD. The percentage of usable storage remaining is with reference to the 2300 MG of storage that can be withdrawn from intake Gate #1 and Gate#2. As expected, higher demands led to heavier storage drawdowns during dry periods. The demand can be increased to 8.9 MGD before storage is depleted, as shown in Figure 5-2. This occurs during the 1933-34 drought, when remaining usable storage reached 0.3% on February 25th, 1934. If the model used



the storage between intake Gate #2 and Gate #3, the reported yield would be about a half MGD greater, but there would be no margin for error to account for difficulties that could be encountered when pursuing the withdrawal of the remaining water in the lake, including hydraulic restrictions (the flow rate into the pump station) and water quality concerns among others.

The minimum release was assumed to be 5 cfs anytime the dam was not spilling at least 5 cfs and storage was greater than 40%. When storage falls below 40% the minimum release is reduced to 3 cfs.

Distribution of Annual Safe Yields. As a secondary measure, the distribution of safe yield for each individual year of the record was determined. Climate years were modeled from April 1 to March 31 of the following year. The model was iterated with increasing demands until storage is depleted. That demand level is then the yield for that particular year. Details of this procedure include:

- restarting the lake at full capacity on April 1, then
- repeatedly simulating forward to the next March 31, increasing assumed demand until usable storage is exhausted at some point during the year.
- In the event of over-year storage events (i.e. multi-year droughts), the simulation length was extended until the drought ends and the full length of the drought was simulated to determine the yield for the year in which the drought begins.

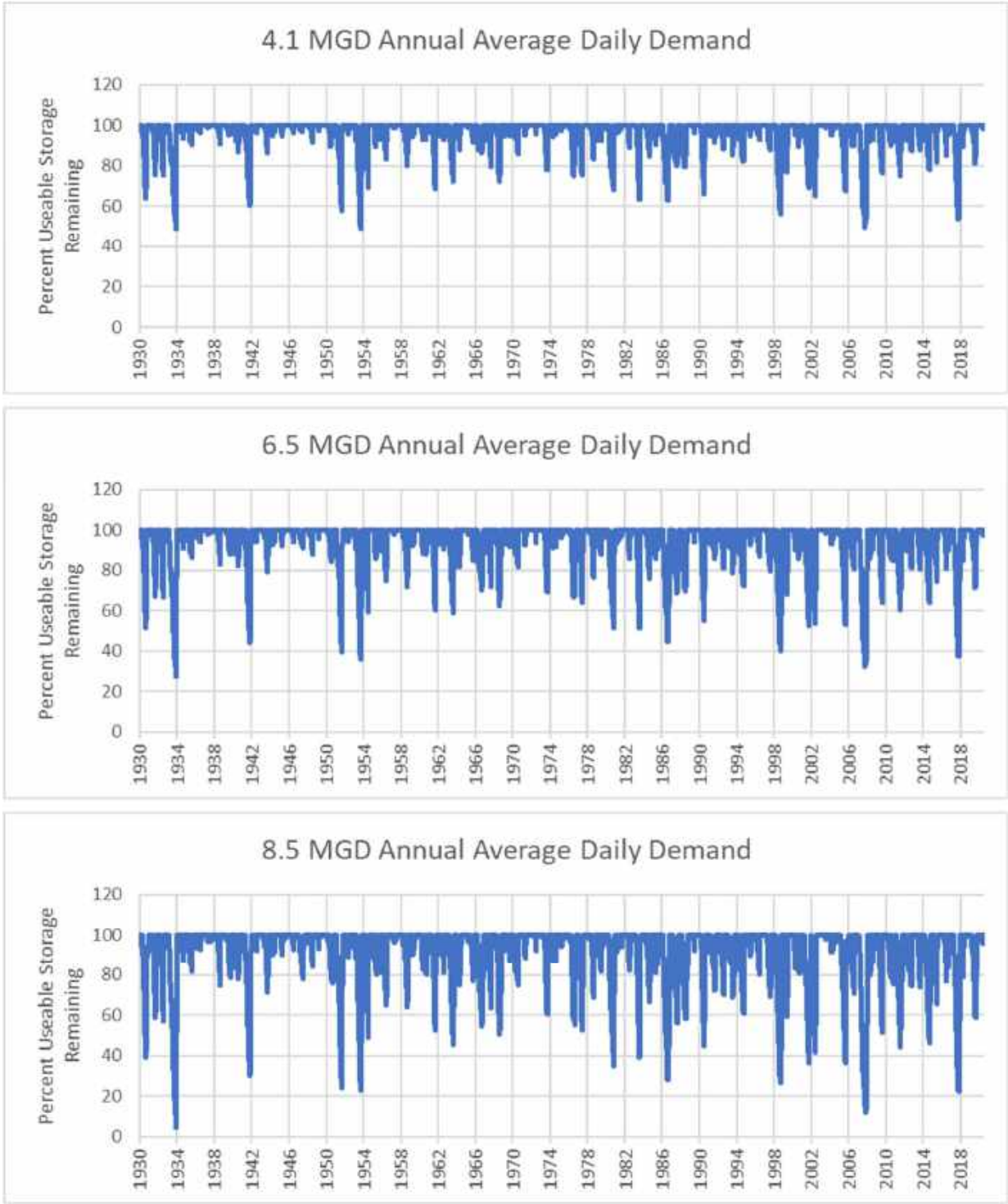


Figure 5-1: Simulated Percent Usable Remaining Storage in Graham-Mebane Lake for Annual Average Demands of 4.1, 6.5, and 8. MGD.

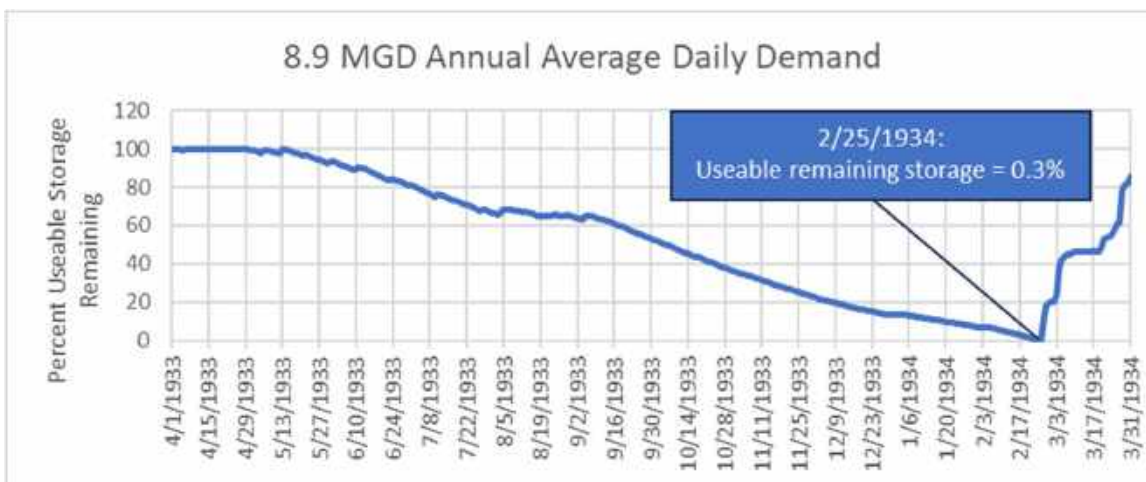


Figure 5-2: Storage Curve at System Yield, 8.9 MGD, during the 1933-34 drought.

These annual safe yield values were ranked from lowest to highest and presented as a frequency distribution allowing a yield to be assigned to desired return interval (e.g. 1 in 20 years, or 1 in 50 years)². Figure 5-3 shows the full distribution with low-to-high rank of annual safe yield on the x-axis. Annual safe yields ranged from a low of 8.9 MGD (occurring in 1933) to a high of 46.9 MGD (occurring in 2003). Note that all yields provided are raw water yields, and will differ from the finished water produced by an amount equivalent to the process loss at the WTP. Figure 5-4 focuses on the lowest-ranked 20 years of this distribution and provides percentiles and return periods equivalent to year ranks. For example,

- The 2nd worst drought (2007-08) had an estimated yield of 9.5 MGD. By interpolating between the worst and second worst droughts, the 50-year safe yield is estimated at 9.4 MGD. This slightly less than the 50-year yield of 10 MGD from the prior study.
- The 4th and 5th lowest-ranked years, which correspond to return periods of 22.5 and 18 years, respectively, had annual safe yields of 11.2 and 11.4 MGD. The 20-year safe yield can therefore be estimated as 11.3 MGD; this is lower than the 20-year yield of 12.5 MGD from the prior study.

Both results are reasonable given the update of the SAE curve and the corresponding reduction in usable storage due to sedimentation (described in Section 3). However, another difference is that prior safe yield calculations were made on a monthly timestep. The OASIS model uses a daily timestep which should provide a more accurate estimate especially since the length of most droughts in this region are relatively short (less than 1 year), unlike in the western US.

² Technically these are best expressed as a probability of occurrence in any given year. So what we call a 1 in 50 year drought really has a 2% chance of occurring in any given year. And a 20-year safe yield represents a withdrawal rate that cannot be met in 5% of years. This avoids providing the impression only one such event will occur in 20 or 50 years. It is entirely possible to get 2 or more such events close together in time.

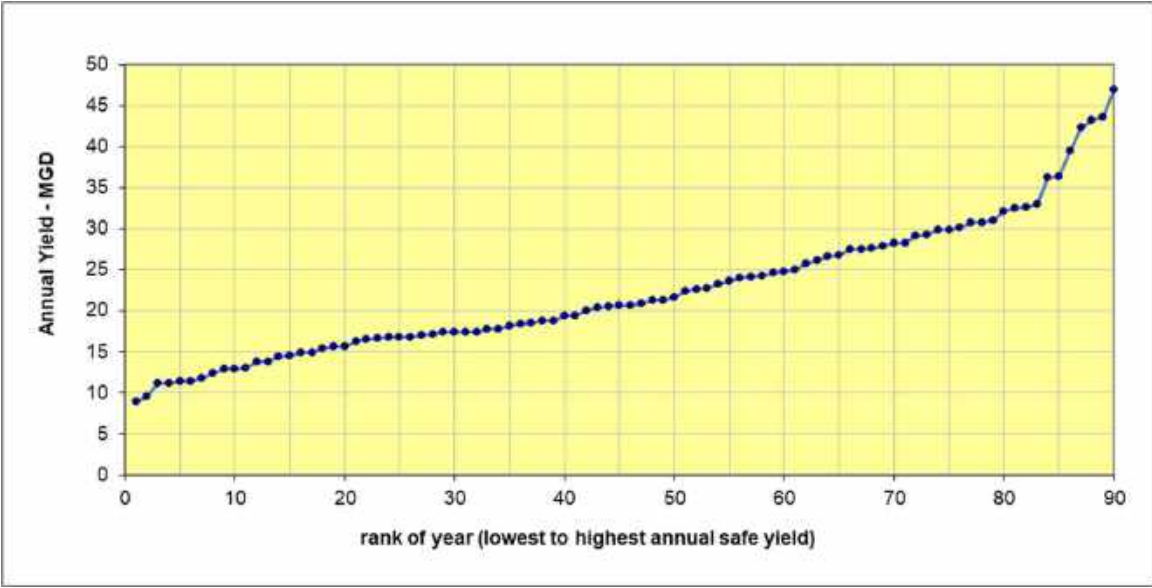


Figure 5-3: Distribution of Annual Safe Yields for Each of the 90 Years in Simulation.



Figure 5-4: Distribution of Annual Safe Yields for the Lowest-Yield 20 Years in Simulation.



Finally, the future impacts of sedimentation on safe yield were evaluated. The 2070 safe yield was estimated by reducing today's usable storage by a projected sedimentation rate shown of 0.16 AF/yr/sq. mi. (See Table 3-2). The safe yield with the additional 47-years of sediment accumulation would decline from 8.9 MGD to 8.2 MGD in 2070. Yield shown are raw water yields. Converting these yields to finished water yields can be done by reducing the raw water yield by the WTP's process water fraction.

6. Conclusions and Recommendations

This project represents a significant step forward in the long-range water supply planning process. Establishing a more accurate reservoir storage estimate significantly reduces the uncertainty in planning for the region's water supply future based on the continued use of Graham-Mebane Lake. An updated water supply model that has been validated over a 10-year period provides confidence that the safe yield estimate has a sound basis. The yield estimate was produced using the Cape Fear/Neuse OASIS model developed for the NC Division of Water Resources with model revisions in and around Graham-Mebane Lake to reflect the updated lake SAE relationship and better match historical lake elevation data. The new safe yield analysis indicated that the drought of record occurred in 1933-1934, slightly exceeding the intensity of the 2007-2008 drought in terms of the limits on withdrawing water supply from Graham-Mebane Lake. The yield available during the 1933-1934 drought was estimated at 8.9 MGD. Return frequency drought intensities of 50-year and 20-year yields are 9.4 MGD and 11.3 MGD, respectively. These values are all based on historical inflow estimates. Estimation of future inflows due to climate change or other deviation from historical hydrology were not considered. A direct comparison to the 2008 yield study shows that the current estimate of the 20-year yield (11.3 mgd) is 1.2 mgd (about 10%) less than the estimate in 2008. The difference in yield between the two studies can be attributed to the estimate of storage in the reservoir and the method for estimating reservoir inflows.

Factoring in the projected sedimentation rate, the safe yield in 2070 is expected to decline by about 10% if sedimentation rates between now and 2070 are similar to the surveyed rate. In order to preserve long-term water supply storage in the lake, the City should encourage neighboring jurisdictions to enforce their respective ordinances that preserve water quality within waters that drain to Graham-Mebane Lake.

The current model of Graham-Mebane Lake is fair to good based on the validation plot shown in Figure 4-8. There is room for improving the model and planning for that improvement may have value for the City. One consideration for long-term improvement in the supply modeling efforts would be to improve the inflow estimation method for Graham-Mebane Lake. The most effective means for doing so would require some new instrumentation. The first option would be to sponsor one or more USGS gages in the Graham-Mebane Lake watershed to provide a more direct runoff estimate into the lake. Figure 6-1 shows four potential creek watersheds that could be gaged at roadway crossings to provide this data. A single gage may be sufficient. However, since none of proposed locations could individually capture a majority of the Lake's watershed area, another option that has been used successfully elsewhere involves deductively calculating the inflow estimate for the entire lake by rearranging Equation 2-1 and solving for inflow. However, this requires making all the other variables "known". This would require detailed record keeping for pumping, minimum release, and lake level operations. The lake level could be recorded with an ultrasonic lake level sensor installed somewhere on the lake to provide hourly or sub-hourly readings, providing a high-resolution storage record. The recording frequency must be high (ideally hourly or sub-hourly) to provide accurate reservoir outflow estimates since reservoir levels can change quickly during transient flow conditions as water flows over the dam and lake elevations change quickly. This record could be then combined with withdrawal and minimum release information to back-calculate inflows. Either method (new gage or lake level sensor) can take time to bear results with respect to model improvement. The use of the gages noted in Section 4.2 would not be entirely discounted. However, as

seasonal and conditional (dry, normal, wet period) correlations between the existing gages and the new inflow estimate are developed over a period of years, the prior records can be adjusted according to the observed relationships. These adjustments would better reflect what is happening in Graham-Mebane Lake and provide increased confidence in the model's predictive capabilities which has a host of benefits from improved yield estimates to more sophisticated drought management techniques.

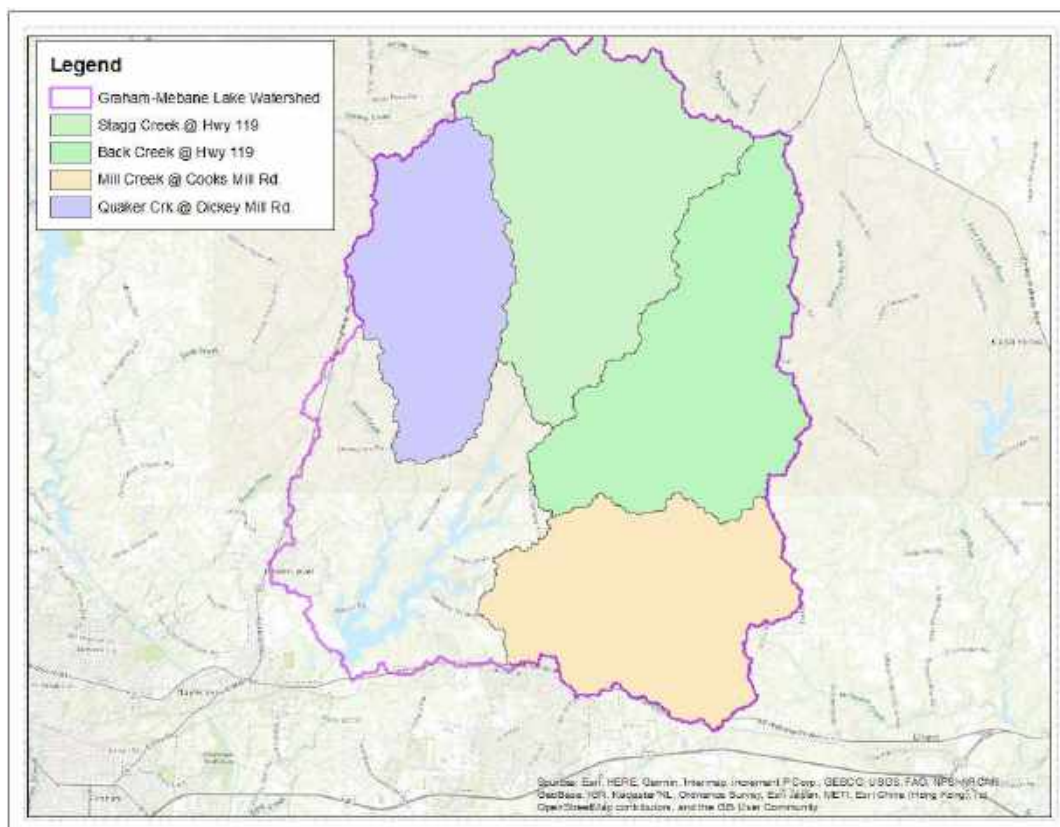


Figure 6-1: Potential Future Stream Gaging Sites to Support Calculations of Lake Inflows.

Moving forward, the cities of Graham and Mebane may wish to build on this safe yield study by developing a comprehensive long-range water supply study to continue planning for a secure water supply future. A comprehensive supply study would incorporate the cities' demand projections and the safe yield of Graham-Mebane Lake to identify any gaps in water supply in the future. The study would identify alternatives for meeting any projected supply gaps making use of water supply information on options and alternatives the City has already studied, as well as investigating new supply solutions. Options for consideration would include preserving, reclaiming, or even expanding storage in Graham-Mebane Lake. The study should include an evaluation of cost and yield of supply options so that the City is well prepared to maximize supply reliability while minimizing costs to its rate payers.



Appendix A

May 19, 2023

Reed Palmer, PE
Senior Associate
Hazen and Sawyer
4011 Westchase Blvd, Suite 500
Raleigh, NC 27607

RE: Graham-Mebane Lake Bathymetric Survey Report

Dear Mr. Palmer,

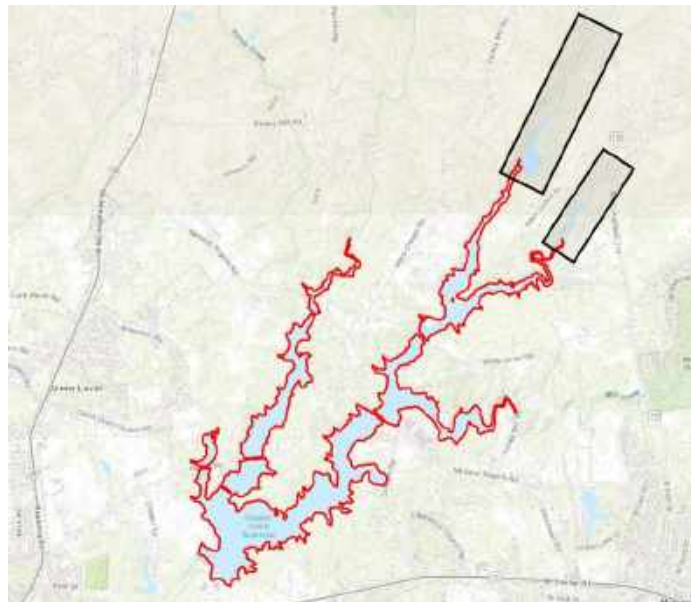
The following information details Stewart's scope of work and technical approach for the Graham-Mebane Bathymetric Survey performed in January-April 2023.

PROJECT CONTACTS

Reed Palmer – Hazen and Sawyer (Project Manager)
Tonya Mann – Graham Mebane Water Plant (Utilities Director and site contact)

SCOPE OF WORK

The Graham-Mebane Lake Water Supply Reservoir Study includes a comprehensive survey of the lake floor elevations and surrounding lands up to the 535-contour line. Stewart conducted bathymetric and aerial surveys in order to create contours and volumetric calculations including storage curve figures. Data from North Carolina's Spatial Data Download Program was also utilized to supplement the study. The sketch below depicts a general location of the lake border in addition to the supplemental study areas noted by the boxes.



PROJECT INFORMATION (Results from this survey)

Project Area: 47,413,656sf (1,088ac)
Top of Dam: 529.4'
Normal Pool (NP): 529.4'
Lake Surface Area (at NP): 31,002,959sf (711.7ac)
Lake Volume (at NP): 12,374,345cy (2499.3 MG)
Sediment Volume: 572,318cy

SURVEY EQUIPMENT

Bathymetric data was collected using a single beam echosounder for bottom elevations and a dual frequency echosounder for sediment measurements. Echosounders were linked with GPS receivers to provide horizontal and vertical locations. A remote-controlled boat and crewed boat were used to carry equipment. Aerial data was collected by crewed aircraft equipped with lidar and photogrammetric sensors.

CONTROL SETUP

Horizontal datum is NAD83(2011) and vertical datum is NAVD88 tied to NCGS "AL H028 1" and "AL H0278 4". Base control points (benchmarks) 1-12 are rebar and were set using North Carolina Virtual Reference Station (VRS) Realtime Network. Aerial data control panel points 101-111 were set with temporary materials. All points were occupied at a minimum of two (2) observations. Base control points were occupied and checked daily.

DATA COLLECTION

All field work was performed with a 2–3-person crew. The perimeter of the lake was mapped using aerial data and confirmed in the field. Underwater points were collected at an average of fifty feet (50') apart. Apparent thalwegs and remnants of stream features were investigated by running perpendicular cross sections. Sediment depth survey points were collected at an average of 100' apart.

DATA PROCESSING AND MAPPING

AutoCad Civil 3d was used to process and create contour and volume data. The underwater surface is comprised of spot elevations and 3d breaklines. Areas that contained adequate information resembling a drainage feature were mapped with breaklines. The terrestrial surface was created using the lidar point cloud data. Both the underwater and terrestrial surfaces were combined to make a complete surface with contours. From there, volumetric calculations were run in Civil 3d. The planimetric features consist of buildings, roads, bridges, wood lines, fences, dam and overhead utility lines.

Sediment depth points were used to create a separate surface which was compared to the base underwater surface.

STORAGE CURVE DATA

Data from the Civil 3d volume processing was used to populate a spreadsheet with reservoir volume and reservoir surface area at one-foot intervals. A separate dataset was reported specifically for the lake area north of the "Old Dam" since the lowest point there is at the 519' elevation. The volume retained upstream of the "Old Dam" and below 519' elevation was recorded.





QUALITY CONTROL

Quality control measures were in place throughout the duration of the project. Multiple observations on control points were collected to ensure repeatable results per survey specifications. Underwater elevations were confirmed by evaluating results from two (2) different datasets from two (2) different types of equipment - the single beam (single frequency) remote controlled boat and the single beam (dual frequency) echosounder-equipped crewed boat. Areas and volumes were computed from two (2) separate workflows in Civil 3d to ensure matching results. Calculations were reviewed independently by separate team members.

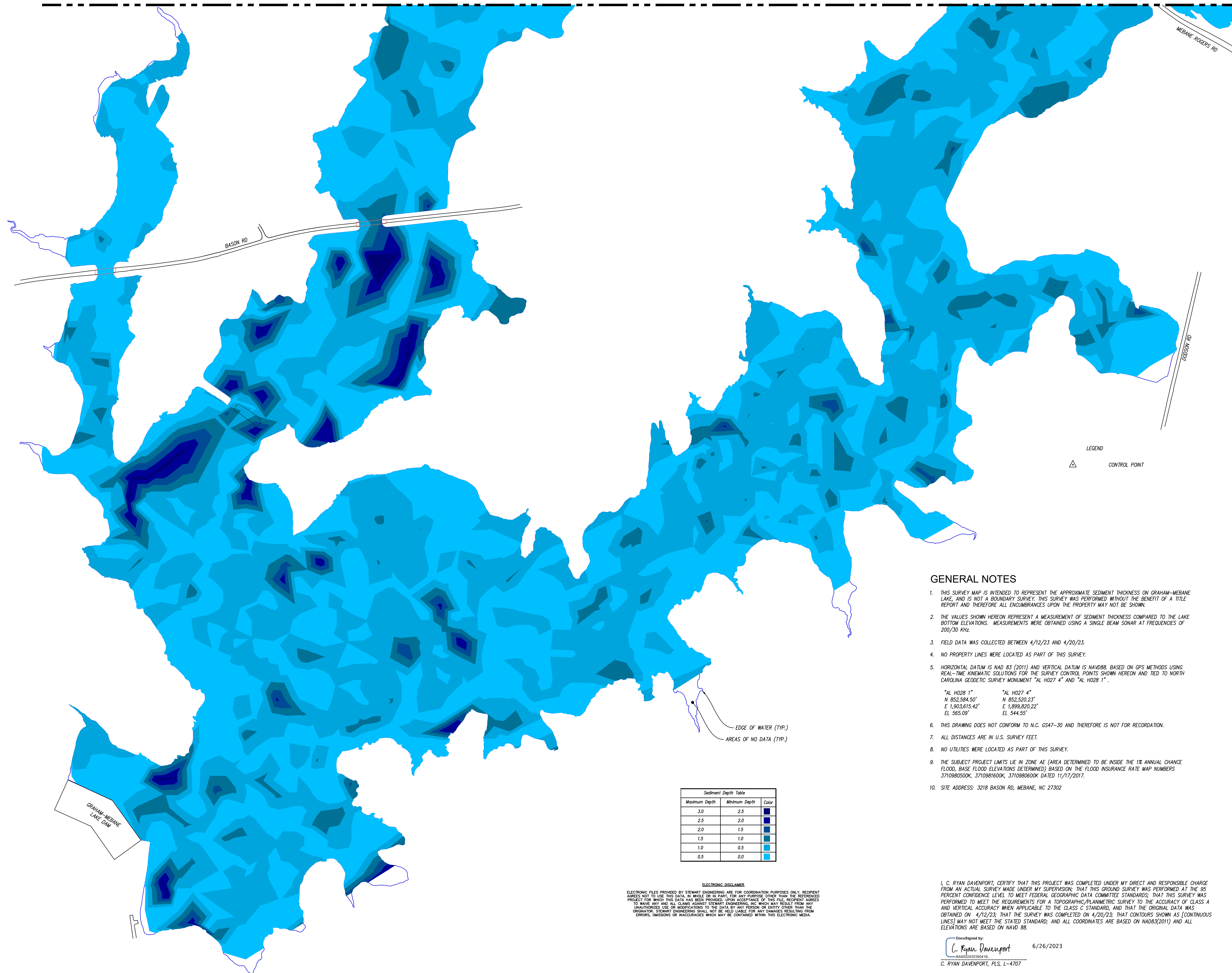
DELIVERABLES

The following deliverables were submitted for this project.

- CAD survey drawing in Civil 3d
- Point database in Northing, Easting, Elevation (comma delimited) text file
- CAD surface TIN in Land XML format
- Stage-storage-surface area curve in Excel format
- Heat maps of water depths and sediment depths in PDF format
- Technical Memo of technical methods and equipment used
- USB flash drive containing all files including signed and sealed pdfs of survey

CERTIFICATION

The survey techniques and methods used to perform this project adhere to the contract specifications and the rules and regulations per North Carolina Administrative Code – 21 NCAC 56.1606 – Specifications for Topographic and Planimetric Mapping, Including Ground, Airborne, and Spaceborne Surveys. Bathymetric data collection techniques used for this project align with the USACE guidelines as published in ER 1110-2-8164.



Sediment Depth Table		
Maximum Depth	Minimum Depth	Color
3.0	2.5	Dark Blue
2.5	2.0	Medium-Dark Blue
2.0	1.5	Medium Blue
1.5	1.0	Light Blue
1.0	0.5	Very Light Blue
0.5	0.0	White

GENERAL NOTES

- THIS SURVEY MAP IS INTENDED TO REPRESENT THE APPROXIMATE SEDIMENT THICKNESS ON GRAHAM-MEBANE LAKE, AND IS NOT A BOUNDARY SURVEY. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND THEREFORE ALL ENCUMBRANCES UPON THE PROPERTY MAY NOT BE SHOWN.
- THE VALUES SHOWN HEREON REPRESENT A MEASUREMENT OF SEDIMENT THICKNESS COMPARED TO THE LAKE BOTTOM ELEVATIONS. MEASUREMENTS WERE OBTAINED USING A SINGLE BEAM SONAR AT FREQUENCIES OF 200/30 KHz.
- FIELD DATA WAS COLLECTED BETWEEN 4/12/23 AND 4/20/23.
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"AL H028 1"	"AL H027 4"
N 852,584.50'	N 852,520.23'
E 1,903,615.42'	E 1,899,820.22'
EL 565.09'	EL 544.55'
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- SITE ADDRESS: 3218 BASON RD, MEBANE, NC 27302

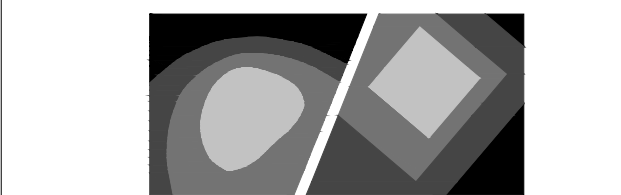
ELECTRONIC DISCLAIMER

ELECTRONIC FILES PROVIDED BY STEWART ENGINEERING ARE FOR COORDINATION PURPOSES ONLY. RECIPIENT AGREES TO USE THIS DATA IN WHOLE OR IN PART, FOR ANY PURPOSE, OTHER THAN THE REFERENCED PROJECT FOR WHICH THIS DATA HAS BEEN PROVIDED. THE USER AGREES TO WAIVE ANY AND ALL CLAIMS AGAINST STEWART ENGINEERING, INC WHICH MAY RESULT FROM ANY UNAUTHORIZED USE OR COPIES OF THIS DATA BY ANY PERSON OR ENTITY OTHER THAN THE ORIGINATOR. STEWART ENGINEERING SHALL NOT BE HELD LIABLE FOR ANY DAMAGES RESULTING FROM ERRORS, OMISSIONS OR INACCURACIES WHICH MAY BE CONTAINED WITHIN THIS ELECTRONIC MEDIA.

I, C. RYAN DAVENPORT, CERTIFY THAT THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT THIS GROUND SURVEY WAS PERFORMED AT THE 95 PERCENT CONFIDENCE LEVEL TO MEET FEDERAL GEOGRAPHIC DATA COMMITTEE STANDARDS; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS FOR A TOPOGRAPHIC/PLANIMETRIC SURVEY TO THE ACCURACY OF CLASS A AND VERTICAL ACCURACY WHEN APPLICABLE TO THE CLASS C STANDARD; AND THAT THE ORIGINAL DATA WAS OBTAINED ON 4/12/23; THAT THE SURVEY WAS COMPLETED ON 4/20/23; THAT CONTOURS SHOWN AS (CONTINUOUS LINES) MAY NOT MEET THE STATED STANDARD; AND ALL COORDINATES ARE BASED ON NAD83(2011) AND ALL ELEVATIONS ARE BASED ON NAVD 88.

DocuSigned by:

 6/26/2023
 C. RYAN DAVENPORT, PLS, L-4707

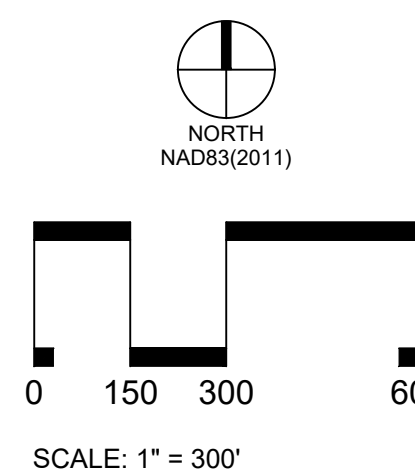
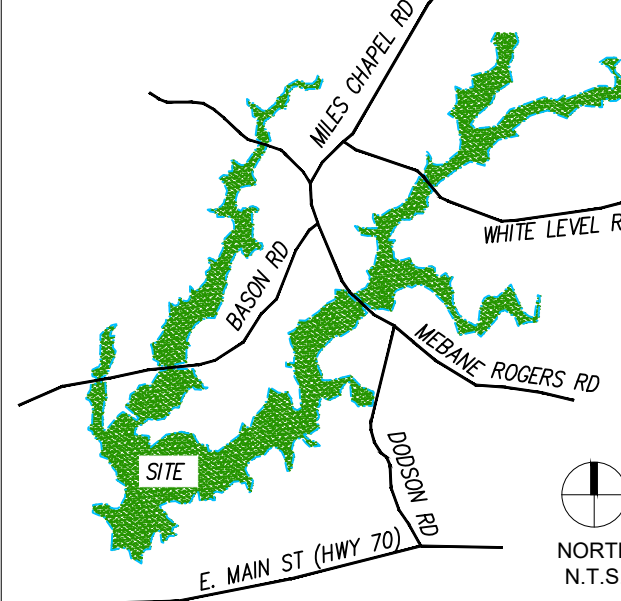


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Vicinity Map:



Title:

BATHYMETRIC SURVEY FOR:

GRAHAM-MEBANE LAKE

ALAMANCE COUNTY, MEBANE, NORTH CAROLINA

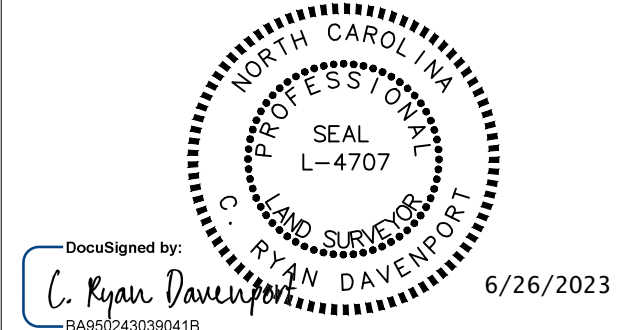
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SCALE: 1" = 300' CONTOUR INTERVAL = NA
 PREPARED FOR: HAZEN AND SAWYER

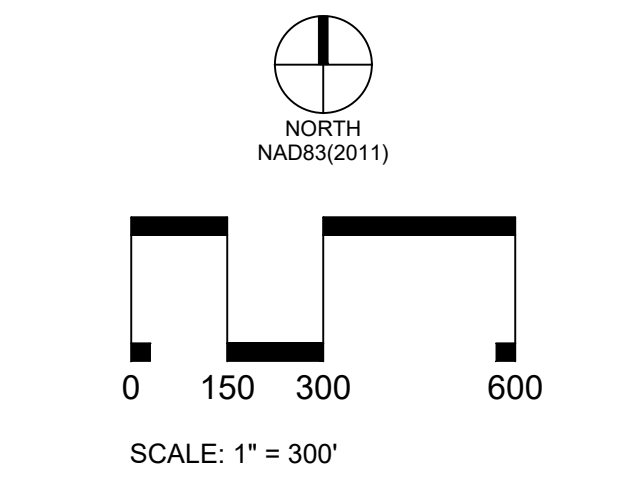
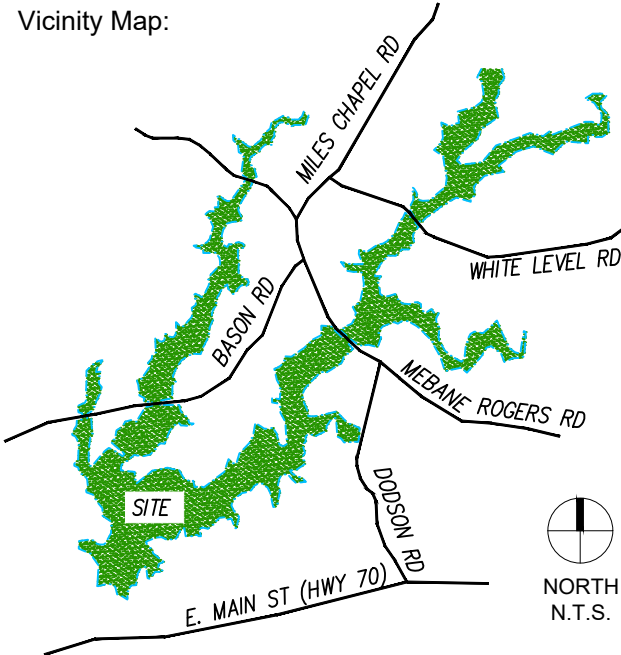
Revisions:

No.	Date	Description

Seal:



Project #: G22136 Sheet:
 Date: 6/6/23
 Drawn by: CRD
 Checked by: CRD



Title:

BATHYMETRIC SURVEY FOR:

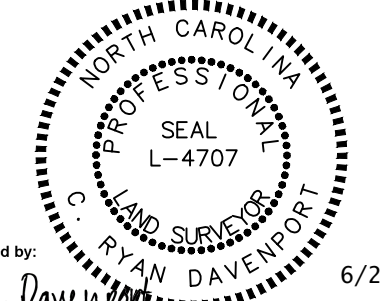
GRAHAM-MEBANE LAKE

ALAMANCE COUNTY, MEBANE, NORTH CAROLINA
 DATE: 6/6/23
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Revisions:

No.	Date	Description

Seal:

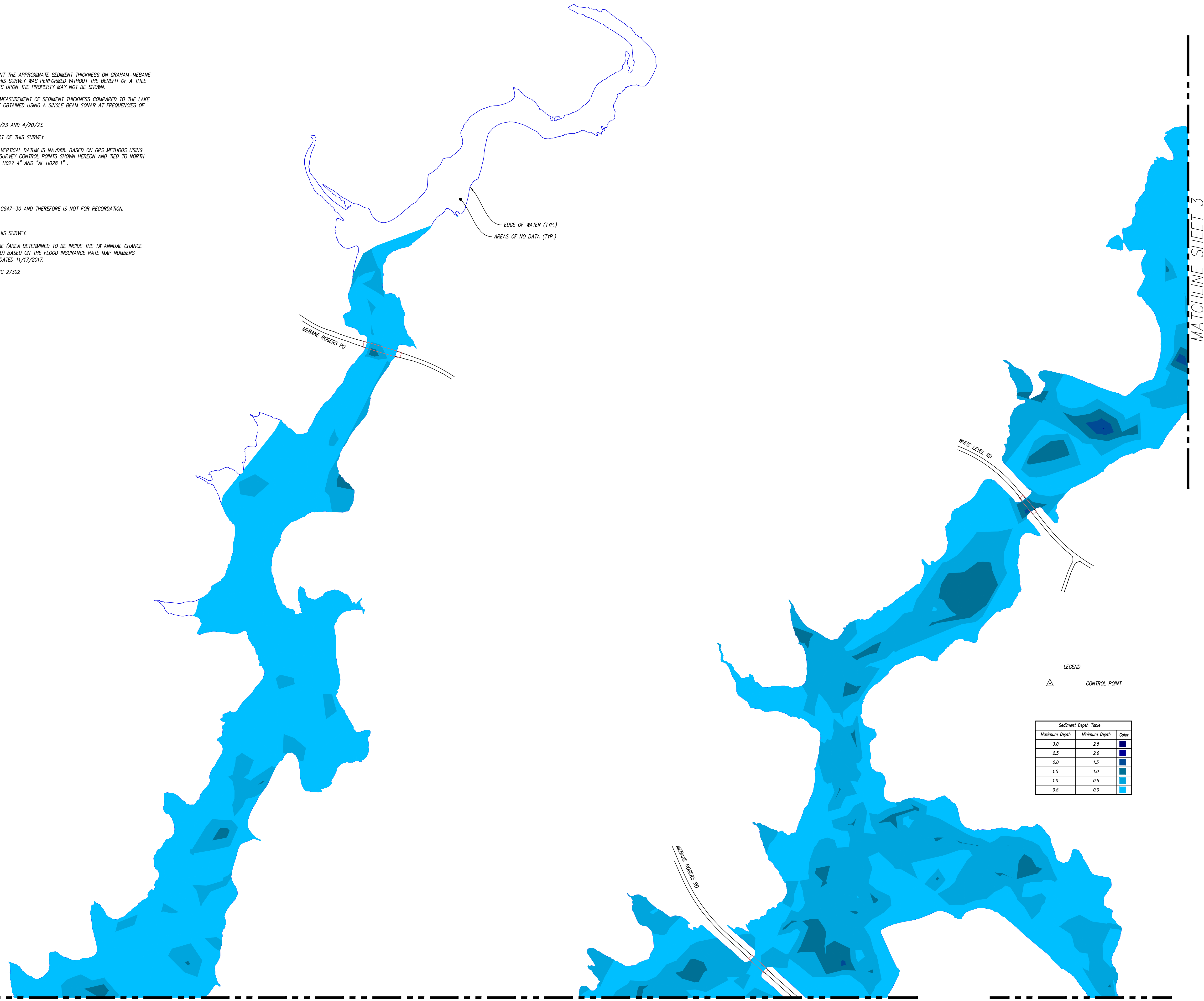


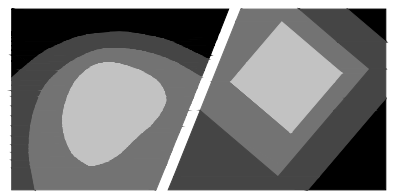
DocuSigned by:
 Ryan Davenport
 6/26/2023

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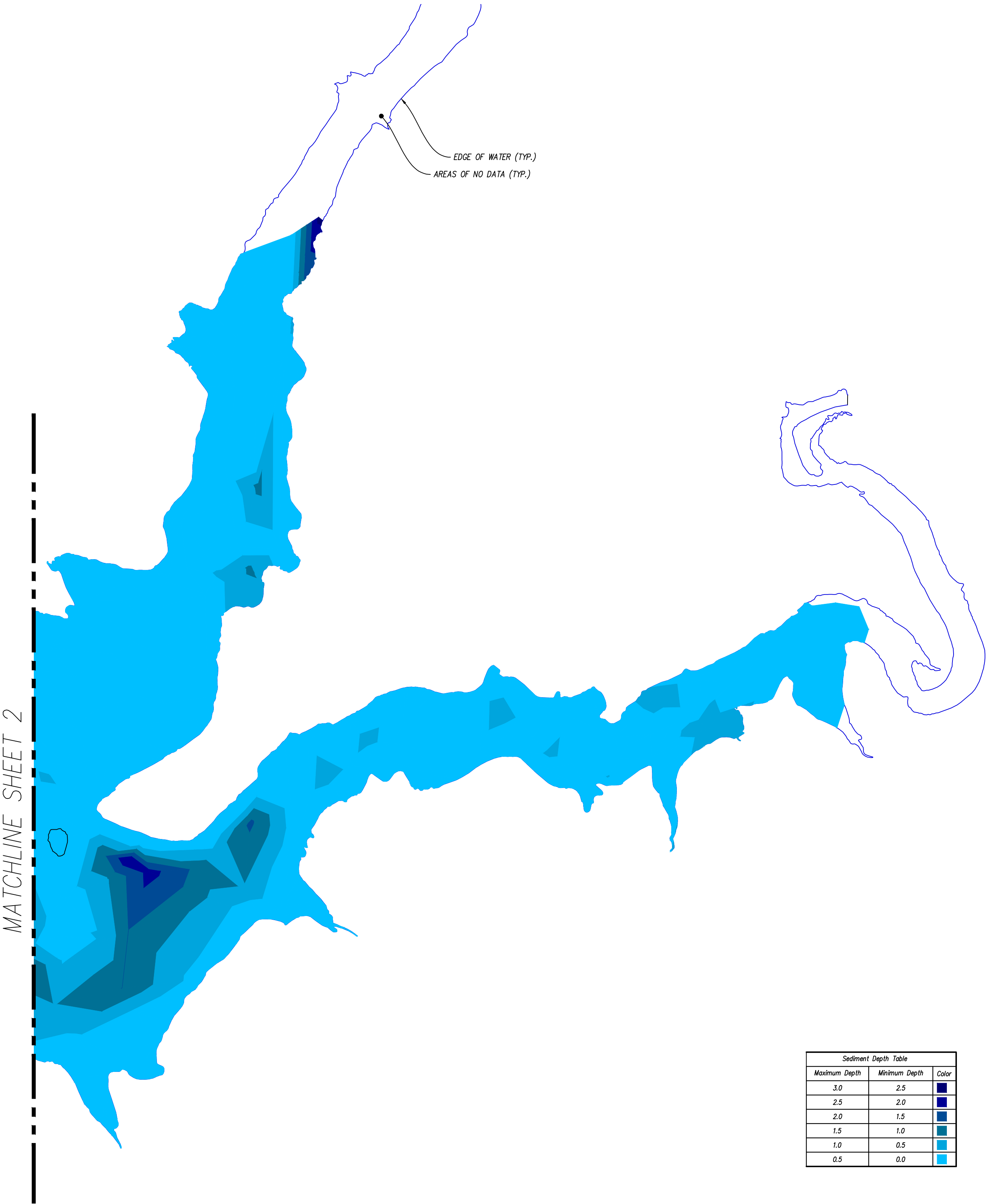
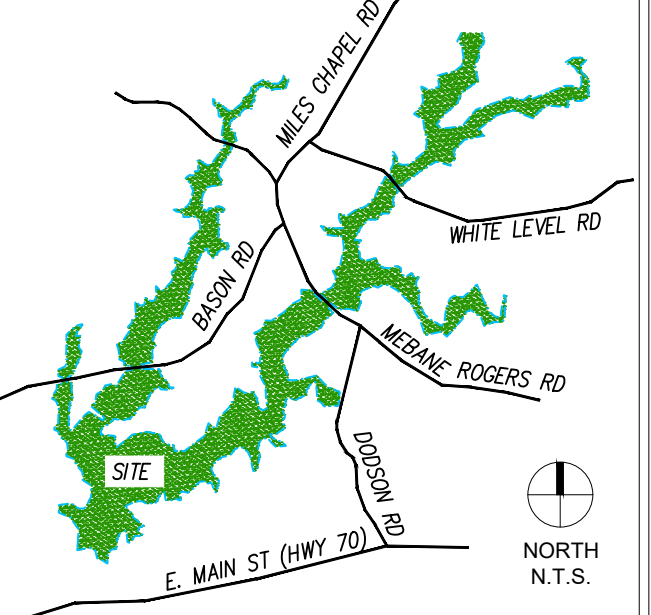




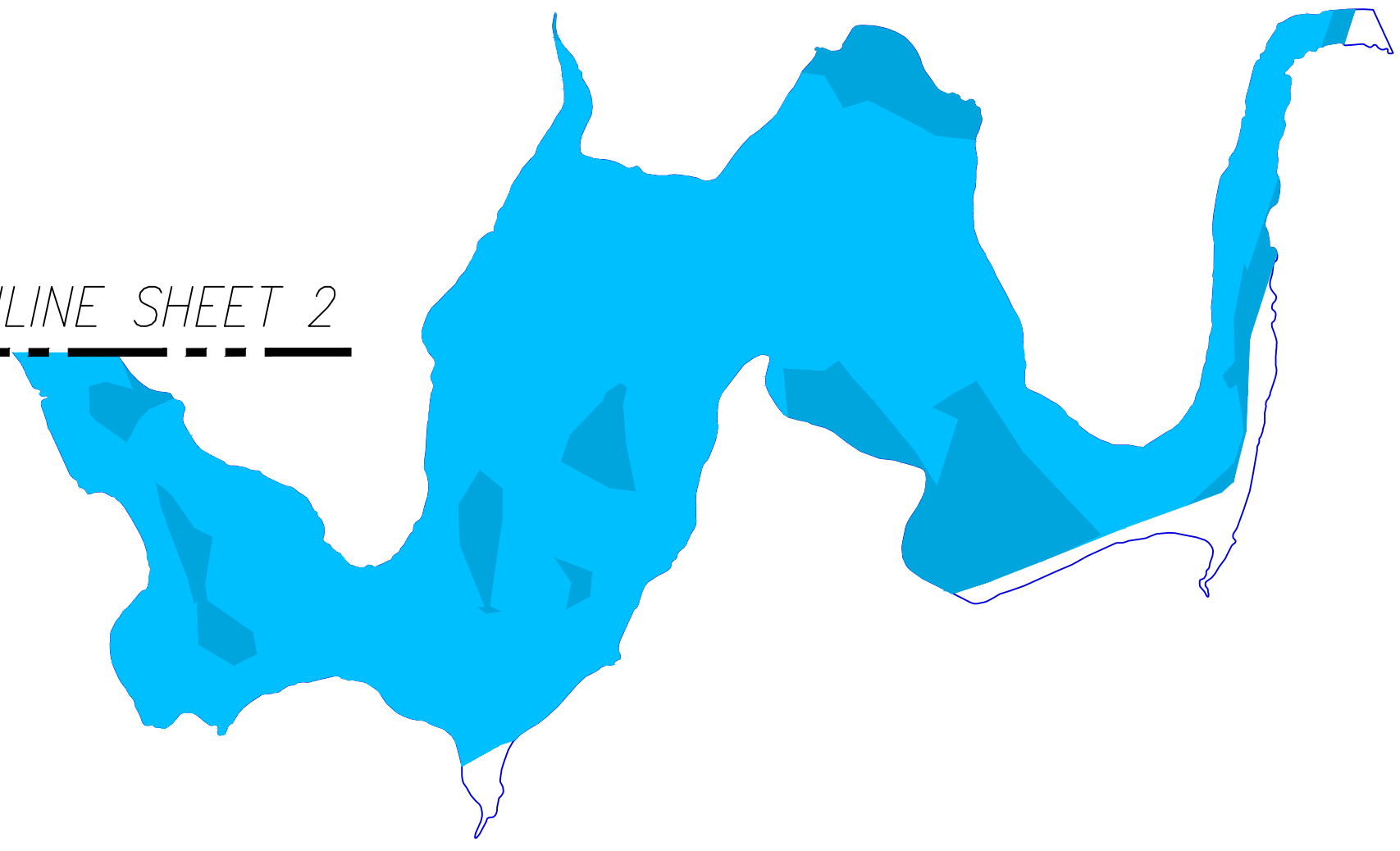
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Vicinity Map:



MATCHLINE SHEET 2



MATCHLINE SHEET 2

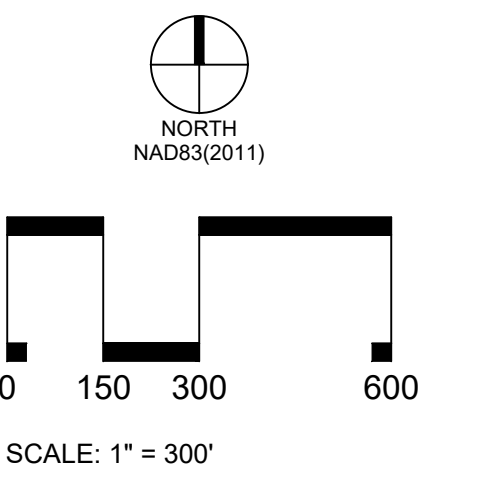
Sediment Depth Table		
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2.5	2.0	Blue
2.0	1.5	Light Blue
1.5	1.0	Very Light Blue
1.0	0.5	Lightest Blue
0.5	0.0	White

LEGEND
△ CONTROL POINT

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- SITE ADDRESS: 3218 BASON RD, MEBANE, NC 27302



Title:
**BATHYMETRIC SURVEY FOR:
GRAHAM-MEBANE LAKE**

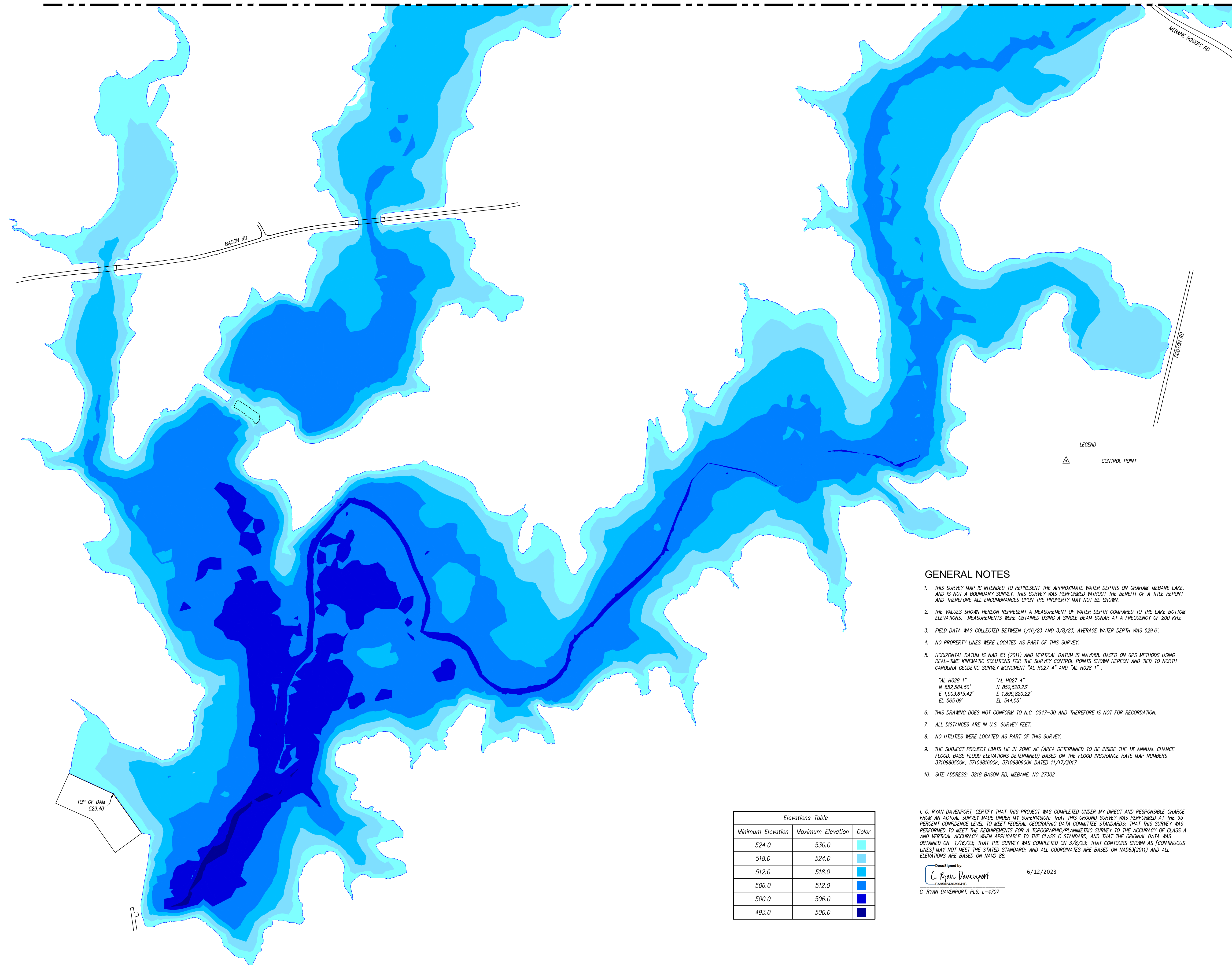
ALAMANCE COUNTY, MEBANE, NORTH CAROLINA
DATE: 6/6/23
SCALE: 1" = 300' CONTOUR INTERVAL = NA
PREPARED FOR: HAZEN AND SAWYER

Revisions:

No.	Date	Description

Seal:

Date: 6/26/2023
Signed by: Ryan Davenport



GENERAL NOTES

1. THIS SURVEY MAP IS INTENDED TO REPRESENT THE APPROXIMATE WATER DEPTHS ON GRAHAM-MEBANE LAKE, AND IS NOT A BOUNDARY SURVEY. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND THEREFORE ALL ENCUMBRANCES UPON THE PROPERTY MAY NOT BE SHOWN.
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3. FIELD DATA WAS COLLECTED BETWEEN 1/16/23 AND 3/8/23, AVERAGE WATER DEPTH WAS 529.6'.
4. NO PROPERTY LINES WERE LOCATED AS PART OF THIS SURVEY.
5. HORIZONTAL DATUM IS NAD 83 (2011) AND VERTICAL DATUM IS NAVD88. BASED ON OPS METHODS USING REAL-TIME KINEMATIC SOLUTIONS FOR THE SURVEY CONTROL POINTS SHOWN HEREON AND TIED TO NORTH CAROLINA GEODETIC SURVEY MONUMENT "AL H027 4" AND "AL H028 1".

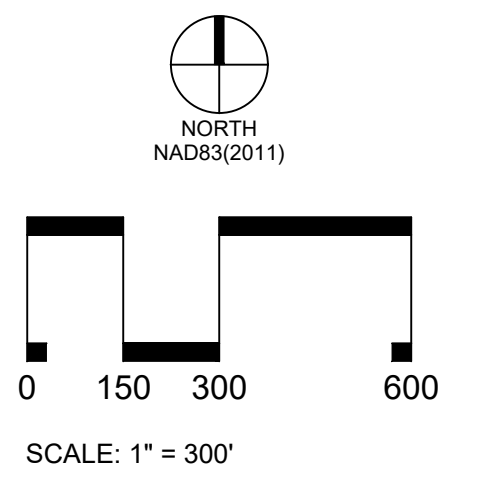
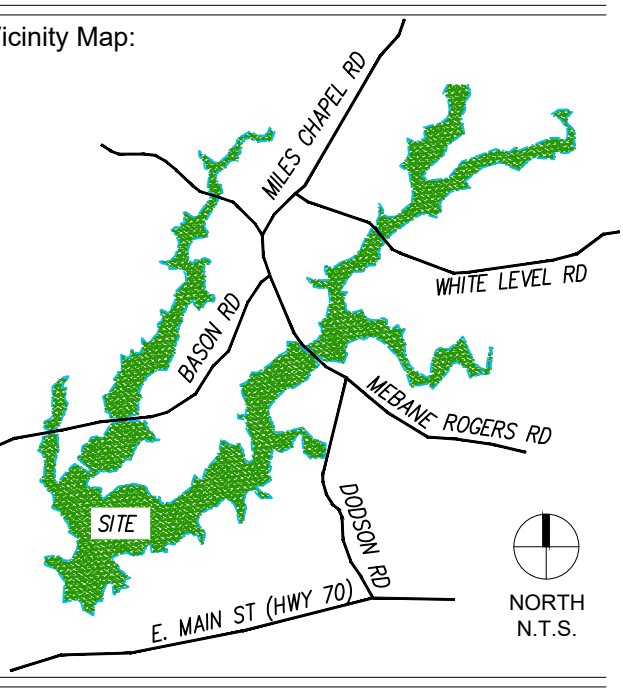
"AL H028 1"	"AL H027 4"
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10. SITE ADDRESS: 3218 BASON RD, MEBANE, NC 27302

Elevations Table		
Minimum Elevation	Maximum Elevation	Color
524.0	530.0	
518.0	524.0	
512.0	518.0	
506.0	512.0	
500.0	506.0	
493.0	500.0	

I, C. RYAN DAVENPORT, CERTIFY THAT THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT THIS GROUND SURVEY WAS PERFORMED AT THE 95 PERCENT CONFIDENCE LEVEL TO MEET FEDERAL GEOGRAPHIC DATA COMMITTEE STANDARDS; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS FOR A TOPOGRAPHIC/PLANIMETRIC SURVEY TO THE ACCURACY OF CLASS A AND VERTICAL ACCURACY WHEN APPLICABLE TO THE CLASS C STANDARD, AND THAT THE ORIGINAL DATA WAS OBTAINED ON 1/16/23; THAT THE SURVEY WAS COMPLETED ON 3/8/23; THAT CONTOURS SHOWN AS [CONTINUOUS LINES] MAY NOT MEET THE STATED STANDARD; AND ALL COORDINATES ARE BASED ON NAD83(2011) AND ALL ELEVATIONS ARE BASED ON NAVD 88.

Dated/Signed by: C. Ryan Davenport 6/12/2023
 C. RYAN DAVENPORT, PLS. L-4707

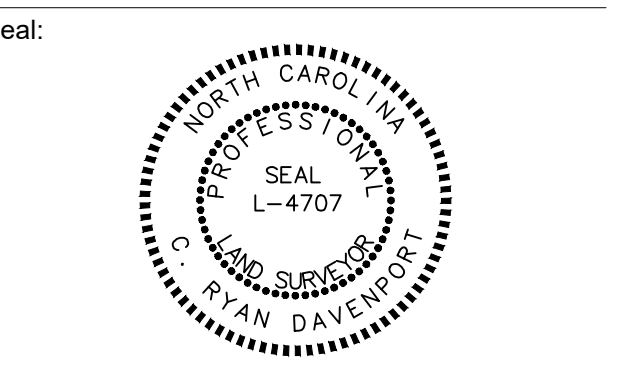
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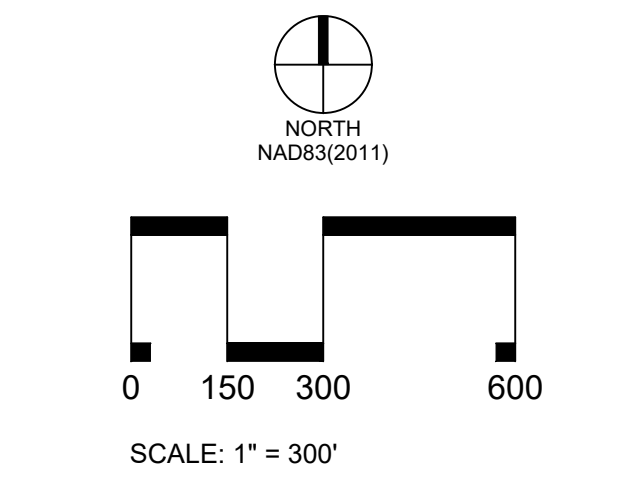
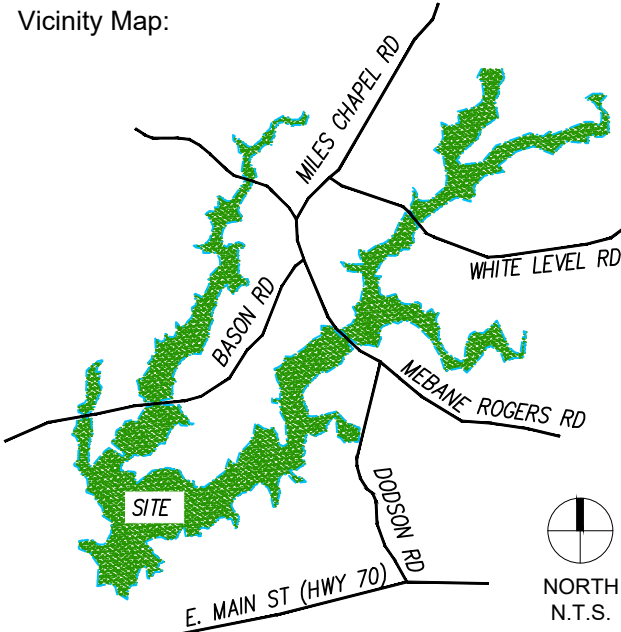


Title:
**BATHYMETRIC SURVEY FOR:
 GRAHAM-MEBANE LAKE**

ALAMANCE COUNTY, MEBANE, NORTH CAROLINA
 DATE: 6/6/23
 SCALE: 1" = 300' CONTOUR INTERVAL = NA
 PREPARED FOR: HAZEN AND SAWYER

Revisions:	No.	Date	Description
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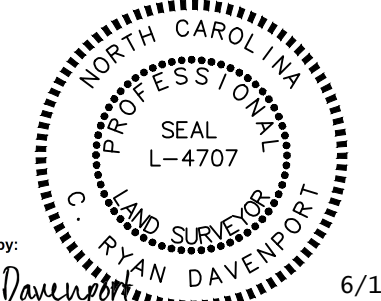
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ALAMANCE COUNTY, MEBANE, NORTH CAROLINA
 DATE: 6/6/23
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Revisions:

No.	Date	Description

Seal:

 Documented by: *C. Ryan Davenport*
 6/12/2023
 BA022410390418







Project #: G22136 Sheet:
 Date: 6/6/23
 Drawn by: CRD
 Checked by: CRD **2 of 3**


GENERAL NOTES

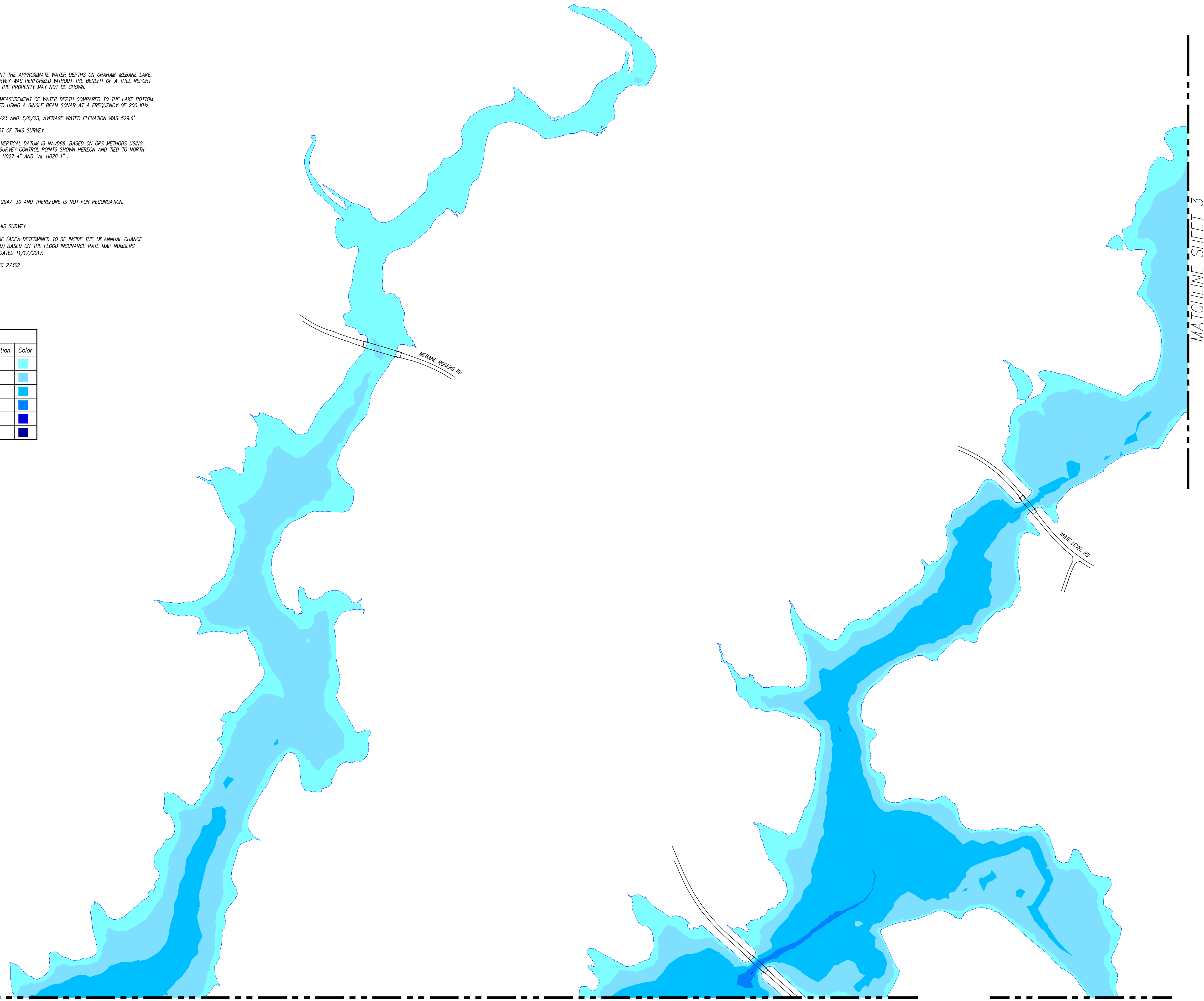
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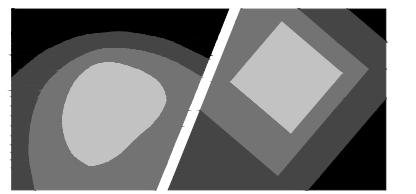
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Elevations Table

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518.0	524.0	
512.0	518.0	
506.0	512.0	
500.0	506.0	
493.0	500.0	

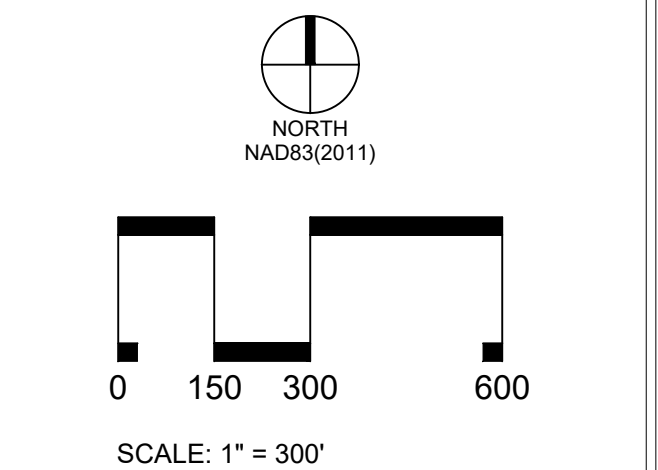
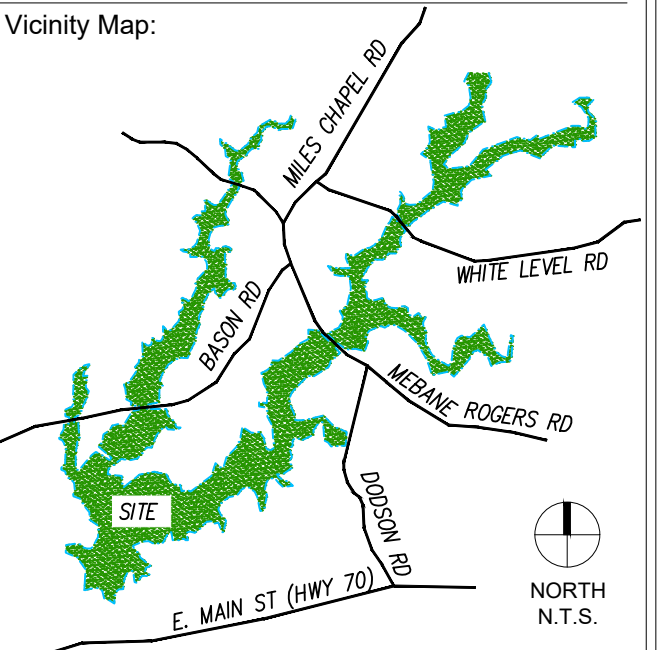
LEGEND
 CONTROL POINT





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T 919.360.8750
FIRM LICENSE # C-1051
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PROJECT # G22136



Title:
**BATHYMETRIC
SURVEY FOR:
GRAHAM-MEBANE
LAKE**

ALAMANCE COUNTY, MEBANE, NORTH CAROLINA
DATE: 6/6/23
SCALE: 1" = 300' CONTOUR INTERVAL = NA
PREPARED FOR: HAZEN AND SAWYER

Revisions:

No.	Date	Description
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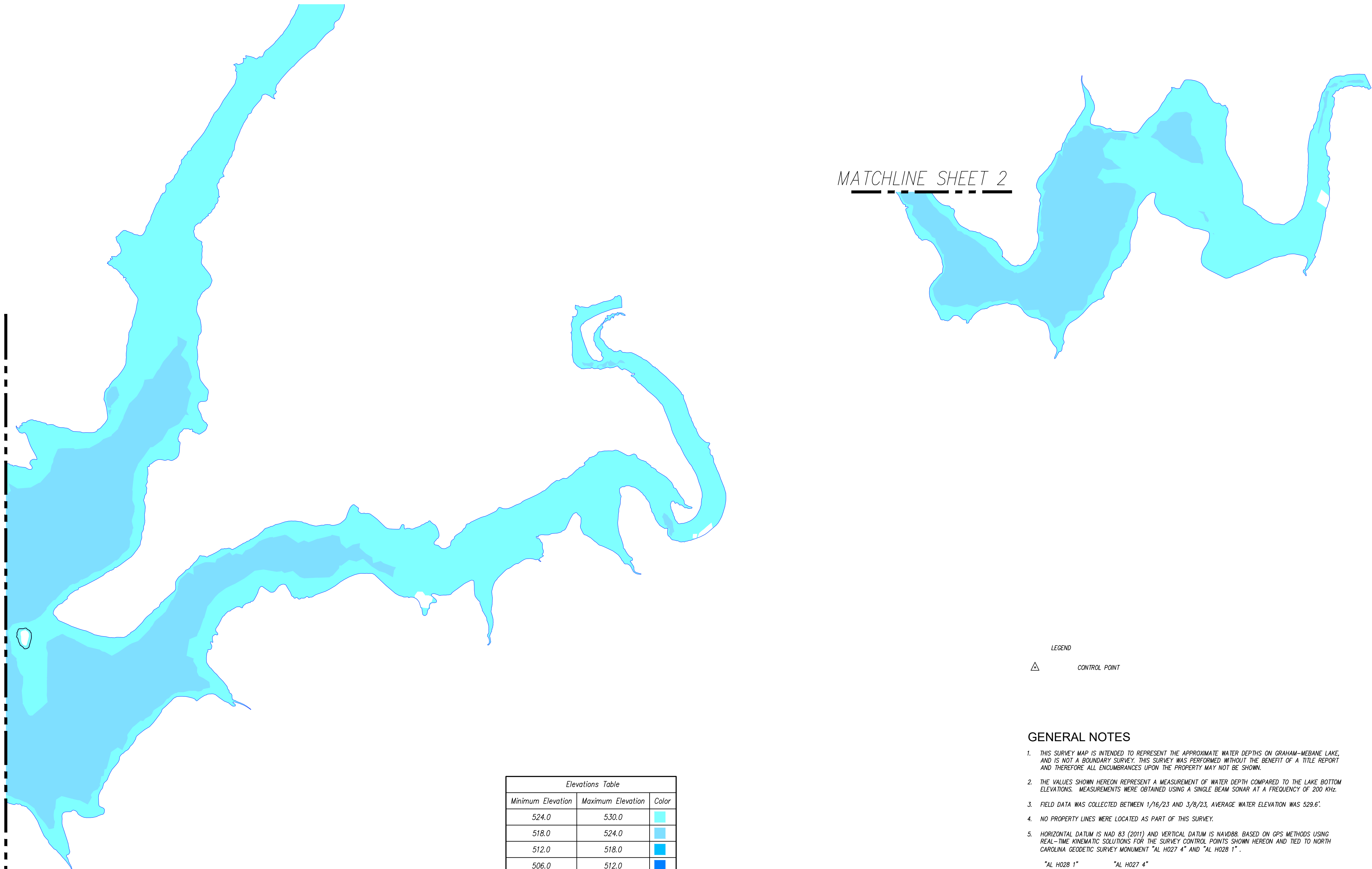
Seal:

DocuSigned by:
C. Ryan Davenport
6/12/2023
ID: 02043030418

Project #: G22136 Sheet:
Date: 6/6/23
Drawn by: CRD
Checked by: CRD
3 of 3

MATCHLINE SHEET 2

MATCHLINE SHEET 2



Minimum Elevation	Maximum Elevation	Color
524.0	530.0	Cyan
518.0	524.0	Light Blue
512.0	518.0	Medium Blue
506.0	512.0	Dark Blue
500.0	506.0	Very Dark Blue
493.0	500.0	Black

LEGEND
△ CONTROL POINT

GENERAL NOTES

1. THIS SURVEY MAP IS INTENDED TO REPRESENT THE APPROXIMATE WATER DEPTHS ON GRAHAM-MEBANE LAKE, AND IS NOT A BOUNDARY SURVEY. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND THEREFORE ALL ENCUMBRANCES UPON THE PROPERTY MAY NOT BE SHOWN.
2. THE VALUES SHOWN HEREON REPRESENT A MEASUREMENT OF WATER DEPTH COMPARED TO THE LAKE BOTTOM ELEVATIONS. MEASUREMENTS WERE OBTAINED USING A SINGLE BEAM SONAR AT A FREQUENCY OF 200 KHz.
3. FIELD DATA WAS COLLECTED BETWEEN 1/16/23 AND 3/6/23, AVERAGE WATER ELEVATION WAS 529.6'.
4. NO PROPERTY LINES WERE LOCATED AS PART OF THIS SURVEY.
5. HORIZONTAL DATUM IS NAD 83 (2011) AND VERTICAL DATUM IS NAVD88. BASED ON GPS METHODS USING REAL-TIME KINEMATIC SOLUTIONS FOR THE SURVEY CONTROL POINTS SHOWN HEREON AND TIED TO NORTH CAROLINA GEODETIC SURVEY MONUMENT "AL H027 4" AND "AL H028 1".

"AL H028 1"
N 852,584.50"
E 1,903,615.42"
EL 565.09"

"AL H027 4"
N 852,520.23"
E 1,899,820.22"
EL 544.55"
6. THIS DRAWING DOES NOT CONFORM TO N.C. 6547-30 AND THEREFORE IS NOT FOR RECORDATION.
7. ALL DISTANCES ARE IN U.S. SURVEY FEET.
8. NO UTILITIES WERE LOCATED AS PART OF THIS SURVEY.
9. THE SUBJECT PROJECT LIMITS LIE IN ZONE AE (AREA DETERMINED TO BE INSIDE THE 1% ANNUAL CHANCE FLOOD, BASE FLOOD ELEVATIONS DETERMINED) BASED ON THE FLOOD INSURANCE RATE MAP NUMBERS 3710980500K, 3710981600K, 3710980600K DATED 11/17/2017.
10. SITE ADDRESS: 3218 BASKIN RD, MEBANE, NC 27302

Appendix B

Three different methods were used to calculate the annual sediment accumulation rate in Graham-Mebane Lake. The first method involves a comparison of bathymetric surveys (Equation B-1). Loss of water storage capacity is derived from comparing storage volumes from two surveys from different time periods. Sedimentation rates can be calculated with respect to the watershed area using the loss of storage capacity. In Equation B-1, S represents the sedimentation rate, typically expressed in units of acre-feet per year per square mile of drainage area. V represents the maximum storage volume of the reservoir, T stands for the number of years elapsed between an earlier study and the more recent study, and A stands for the area of the watershed.

Equation B- 1

$$S = (V_{prior\ year} - V_{current\ year}) \div (T_{year\ elapsed} \times A_{watershed})$$

The second method involves using the sediment volume from the bathymetric survey to compute the sedimentation rate (Equation B- 2). In this equation v represents sediment volume; other terms represent the same quantities as in Equation B- 1.

Equation B- 2

$$S = V_{sediment} \div T_{year\ elapsed} \div A_{watershed}$$

The third method elaborates upon Equation B-2 to account for the difference in lengths of time during which sedimentation occurred in areas of the lake impounded by the old and current dams (Equations B-3 and B-4). The elapsed time for sedimentation in the area upstream of the old dam is assumed to be 47 years and that for the area downstream of the old dam and upstream of the current dam is assumed to be 29 years. USGS StreamStats was used to delineate the watershed areas that are applied for the area upstream of the old dam and the area that applies to the entire watershed for the Graham-Mebane Lake separately as shown in Figure B-1.

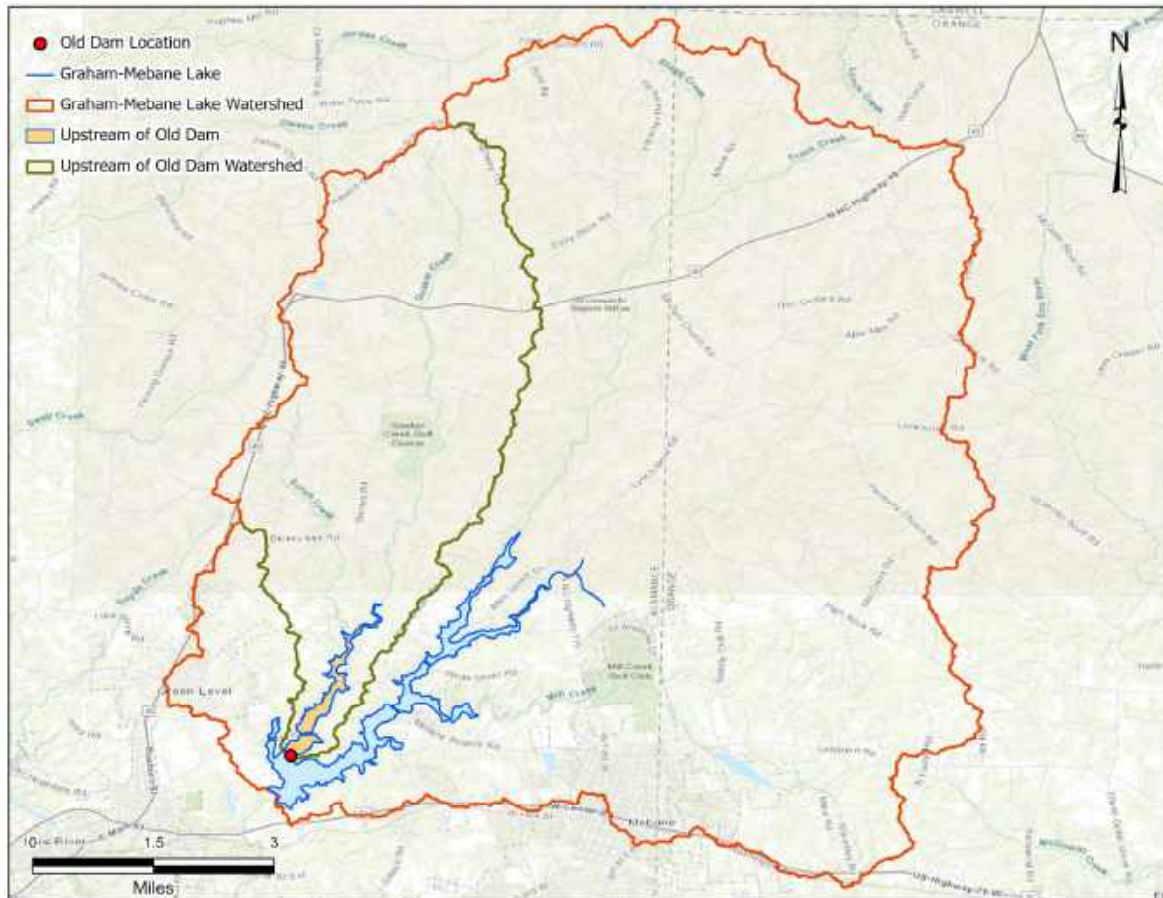


Figure B- 1: Drainage Basins for Old and Current Reservoir Dams

The watershed tied to the lake area above the dam was determined to be 14.4 square miles, and the entire watershed area was determined to be 66.1 square miles. Consequently, the total sediment volume, V , can be expressed as follows:

Equation B- 3

$$V = A_{upstream} \times T_{upstream} \times S + A_{downstream} \times T_{downstream} \times S$$

where $A_{upstream}$ is the watershed area tied to the lake area above the old dam (14.4 square miles), $A_{downstream}$ is the watershed area calculated by subtracting $A_{upstream}$ from the total watershed area (51.7 square miles), $T_{upstream} = 47$ years, and $T_{downstream} = 29$ years. Solving for sedimentation rate:

Equation B- 4

$$S = \frac{V}{A_{upstream} \times T_{upstream} + A_{downstream} \times T_{downstream}}$$

Sedimentation rates calculated by the three methods above are summarized in Table 3-2. The first method (Equation B- 1) could result in falsely high sedimentation rates that are statistically unlikely based on the

distribution of known sedimentation rates of lakes in and around North Carolina (Figure B-2, statistically characterized in Figure B-3). One explanation is that high apparent sedimentation rates are common right after impoundment. Other reservoirs in the region have experienced high rates of apparent sedimentation after impoundment, followed by sharp reductions in sediment accumulation thereafter. The second and third methods, on the other hand, yielded sedimentation rates more in line with other reservoirs in the region.

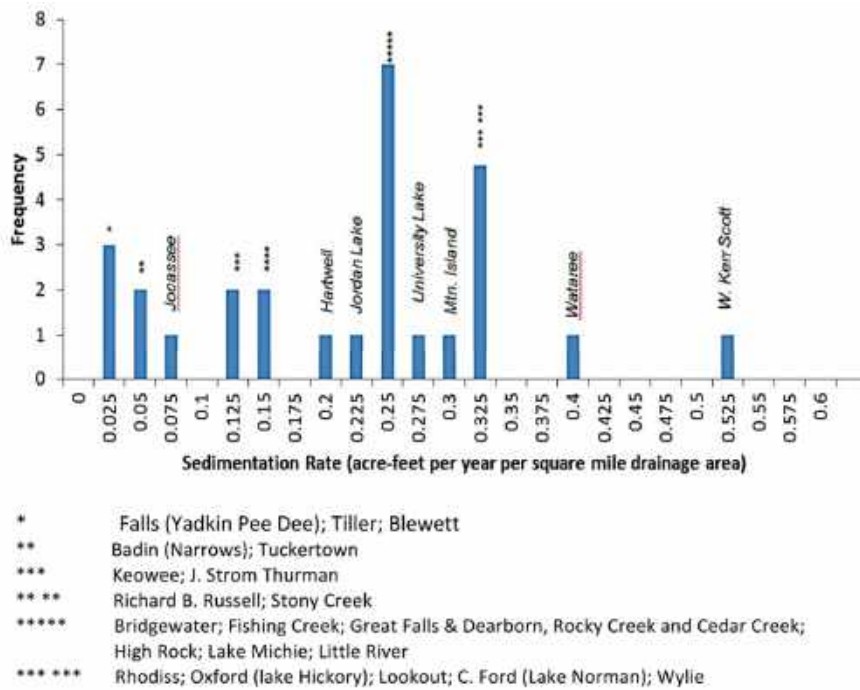


Figure B-2: Sedimentation Rates for Lakes in and around North Carolina³

³ Anna J. Petryniak and Apple B. Loveless, “B. Everett Jordan Dam Sedimentation Rates and Reservoir Capacity”, Duke University – Nicholas Institute for Environmental Policy Solutions (June 2013).

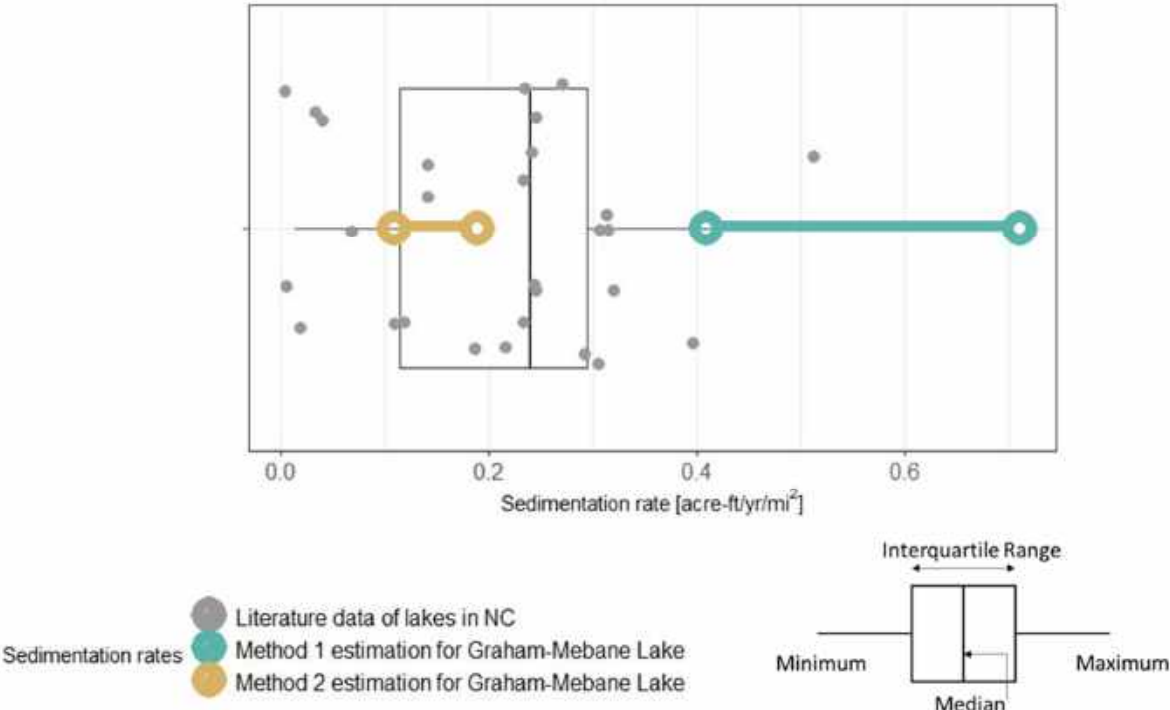


Figure B-3: Comparisons of Three Sedimentation Methods Calculations to Typical Regional Sedimentation Rates

TECHNICAL MEMORANDUM

TO: City of Mebane, North Carolina

FROM: Doug Chapman, McGill Associates

DATE: November 9, 2021

RE: Water Resource Recovery Facility Expansion

This technical memorandum serves as a synopsis of the Visioning Phase efforts of McGill Associates in regard to the Water Resource Recovery Facility (WRRF) Expansion Project.

Background

The City of Mebane owns and operates the Water Resource Recovery Facility (WRRF) — complete with preliminary treatment, activated sludge biological treatment, secondary clarification, tertiary filtration, disinfection, aerobic digestion, and sludge thickening. The WRRF has a permitted capacity to discharge up to 2.5 MGD to Moadams Creek. Many of the existing main treatment process are in older structures over 40 years old, with equipment well over 20 years old, having exceeded their useful life. The facility treats the majority of the City's wastewater, with a small portion flowing to the City of Graham where the City has 0.75 MGD of capacity. The WRRF had an average daily flow of 1.71 MGD during 2020. The city is about to begin construction on a project to improve the treatment and viability of the facility by constructing a new headworks (preliminary treatment) and improving residuals processing equipment.

Existing Facilities

When the original facility was constructed, it included a bar screen and grit collector, one (1) aeration basin, one (1) clarifier, sludge drying beds, and the administration building. Then in 1981, the WRRF was expanded to include one additional (1) aeration basin, two additional (2) clarifiers, the return sludge pump station, chlorine contact basin, and the existing clarifier was repurposed as a digester. Beyond the structures, the equipment installed (process and electrical) in those basins have exceeded their service life. The next major project at the facility, constructed in 1991, included the addition of third larger clarifier and tertiary filters. This clarifier equipment is also well over 20 years old.

Need For Project

Growth & Expansion

Currently, the average daily flow is growing at an approximate rate of 0.1 MGD per year. Based on projected growth of approximately 500 new users annually, representing approximately 1,000 new residents each year, the facility's remaining capacity will be quickly exhausted. As shown in the figure below, the projected growth in flow over the next 30 years is expected to exceed capacity, thus making expansion critical to the future of Mebane. Additionally, per North Carolina General Statutes, wastewater systems must submit an engineering evaluation of their future wastewater treatment, utilization, and disposal needs, prior to exceeding 80 percent of their systems hydraulic capacity. It is expected that Mebane will reach this point by 2023. Furthermore, prior to exceeding 90 percent of the systems hydraulic capacity, North Carolina General Statutes require the wastewater system to obtain all permits needed for the expansion of the wastewater treatment, utilization, or disposal system. It is expected that the city will reach this point by 2026.

Figure 1 - Growth Projections



Based on flow projections, McGill recommends a strategy to construct a biological treatment system with the first two trains having a capacity of 4.0 MGD and the second phase adding a third train for 6.0 MGD. The initial project would be planned to readily accommodate the second phase expansion, with further consideration of a future step to 8.0 MGD.

Aging Infrastructure.

Many of the existing treatment processes are in older structures over 40 years old. Those include the existing aeration basins, the clarifiers, return sludge pump station, and chlorine contact basin. These processes will be relocated to new treatment process basins adjacent to the existing

facility. Further, most of the equipment within the facility that is being taken out of service includes equipment well over 30 years old, having exceeded its useful life.

Floodplain

The project will provide resiliency for the treatment process by replacing aged infrastructure and equipment, and by providing equipment with effective and reliable treatment capabilities. Further, flood resiliency for treatment will be provided by relocating the main portion of the treatment facility (biological treatment and filtration) out of the 100-year floodplain. The project will move the aeration process from the existing structures, which are within the “1% annual chance floodplain” to a new location on the facility site, which is outside of the 500-year floodplain.

Further, while the existing clarifiers, filters, and chlorine contact basin are located outside of the mapped “1% annual flood chance”, they are located adjacent to the boundary and at a water elevation lower than the aeration basins. Therefore, they are also susceptible to flood risks.

Future Nutrient Limits

Beyond the urgent need to address flow capacity, McGill also understands that the facility is subject to phosphorus and nitrogen limits because of total maximum daily load (TMDL) restrictions related to the Jordan Lake Rules. The facility, when originally built and subsequently upgraded, was not designed to biologically reduce these nutrients; however, the City staff has performed a yeoman’s job at addressing both nutrients by use of creative process enhancements and diligence. The TMDL levels imposed by North Carolina Department of Environmental Quality (NCDEQ) are sufficiently restrictive to have a profound impact on what type of treatment technologies can be used for this project. McGill will utilize BioWin modeling during design to ensure that the processes planned and designed will adequately meet the National Pollutant Discharge Elimination System (NPDES) permit.

Alternatives Considered

A previous study proposed expansion of the facility by upgrading the existing aeration basins and adding a second parallel process. The two (2) treatment facilities would have provided a capacity of 5.3 MGD. Considering the age of the facility and the critical need to meet total nitrogen and total phosphorus limits, it is preferred to add a new five stage process. This section evaluates Project Alternatives that would enable the City of Mebane to ensure adequate wastewater treatment capacity and capability for area residents and businesses. The Alternatives evaluated are as follows:

Alternative No. 1 – Oxidation Ditch

This alternative would include the major components below. A conceptual drawing of this alternative is included in Appendix A.

- Headworks Expansion
- New Influent Pump Station
- Existing Aeration Basin repurposed for Flow Equalization
- **New 5 stage Bardenpho Oxidation Ditches**
- **New Secondary Clarifiers**
- **New Return Pump Station**
- New Filters
- Existing Clarifier repurposed for Disinfection
- Existing Aeration Basin repurposed for Sludge Processing

Alternative No. 2 – Sequencing Batch Reactor (SBR)

This alternative would include the major components below. A conceptual drawing of this alternative is included in Appendix B.

- Headworks Expansion
- New Influent Pump Station
- Existing Aeration Basin repurposed for Flow Equalization
- **New Sequencing Batch Reactors**
- **New Post Equalization Basin**
- New Filters
- Existing Clarifier repurposed for Disinfection
- Existing Aeration Basin repurposed for Sludge Processing

Selection of Preferred Alternative

Based on flow projections, McGill has recommended a future strategy to construct a five-stage nutrient removal biological treatment system. The first two (2) trains would have a capacity of 4.0 MGD and the future third train would increase capacity to 6.0 MGD. New filtration would be added to reduce total nitrogen and total phosphorus levels. The first phase project would be planned to readily accommodate the second phase expansion.

Oxidation ditches are the preferred five stage biological treatment in this application for the following reasons:

- The control system of SBR units are more complicated than oxidation ditches due to their numerous automatic switches, valves and instrumentation. As these systems increase in capacity, they become increasingly more sophisticated, providing more opportunity for malfunctions. Due to these reasons, the vast majority of SBR installations in the United States are for wastewater systems of less than two (2) MGD.

- The oxidation ditch is inherently more stable and resistant to biological process upsets because of the longer detention time - ~20-24 hours compared to ~6 hours for SBRs.
- While the SBR is fully integrated in one (1) zone with time separating the stages of biological activity, oxidation ditches have different zones for different types of biological activity.
- Operating SBRs can be more energy intensive in contrast to the operation of oxidation ditches.
- SBR structures are relatively deep and require extensive excavation, possibly elevating capital cost in comparison to oxidation ditches.

Proposed Project

The proposed project will provide treatment of flows to 4.0 MGD and total nitrogen and total phosphorus removal to meet the speculative limits in the NPDES permit. Facility upgrades will be designed with piping and structures planned to accommodate a future expansion of 6.0 MGD. The project will include all necessary site grading, piping, electrical, SCADA, and access drives for a complete system. Below is a description of all major components of the project:

Influent Pump Station

A new influent pump station will be constructed, allowing for adequate hydraulics throughout the facility. Pumps will be designed for a firm capacity of 4.0 MGD. Space will be left for a future pump to achieve a firm capacity of 6.0 MGD.

Headworks

A new headworks is currently being constructed as a separate project. The headworks expansion will include adding one (1) mechanical screen and one (1) vortex grit removal unit, to accommodate flows and to provide redundancy.

Flow Equalization

The existing north aeration basin will be repurposed as a flow equalization tank. Flow equalization is needed due to high I/I and because most of the collection system flow is pumped to the WRRF.

Biological Treatment

Biological nutrient removal will be designed to comply with total TN and total TP limits from the Jordan Lake rules. A two (2) train, five stage Bardenpho process has been selected, this process includes anaerobic, anoxic, aeration, post anoxic, and reaeration stages. A third train will be planned and accounted for in piping, splitter boxes, and the hydraulic profile.

Secondary Clarifiers

Two (2) final clarifiers along with a with RAS pump station will be constructed as part of this project. A third final clarifier will be planned and accounted for in piping, splitter boxes, and the hydraulic profile. The RAS pump station will have space for a future pump.

Tertiary Filters

The City of Mebane currently uses and prefers “inside-out flow” disk filters. The conceptual phase of the project will investigate alternative tertiary filtration options, such as denitrification filters. Further, tertiary clarification may be needed for phosphorous removal.

Disinfection

Post treatment will include disinfection, and dechlorination. The existing clarifier might be repurposed as a chlorine contact basin. The City of Mebane currently uses sodium hypochlorite for chlorination.

Solids handling

The existing south aeration basin could possibly be repurposed to increase the sludge storage of the facility if needed. Furthermore, the existing WAS digester will be rehabilitated and a second rotary drum thickener will be added as part of the current improvements project. The WWRF currently has a thickener, two (2) sludge tanks, and digester, but an outside contractor is used to dewater and dispose of sludge. The conceptual phase of the project will review the increased sludge production with the assumption of maintaining their current disposal method. Lastly, sidestream treatment of supernatant will likely be necessary for the removal of phosphorus.

Project Costs

An application for Clean Water State Revolving Fund (CWSRF) funding through North Carolina Department of Environmental Quality (NCDEQ) was submitted as part of the visioning phase of this project. A detailed cost estimate was created for this application and is included in Appendix C. The major components of the estimate are shown below:

<u>Project Component</u>	<u>Component Cost</u>
General (Mobilization/Site Work/Electrical)	\$12,435,000
Project Elements	\$27,210,000
Contingency (10% Construction Cost)	\$3,965,000
Construction Subtotal	\$43,610,000
Engineering Costs	\$5,023,000
Administration Costs	\$2,367,000
Total Project Cost	\$51,000,000

Schedule

Beyond the technical planning and design of the project, adhering to an aggressive schedule is paramount to project success. As part of the visioning stage of the project, McGill has developed a schedule to simultaneously progress through the NPDES expansion permitting, facility design, and funding solicitation. While most steps of this process are critical, NPDES expansion permitting is one that has significant items outside of the control of the City or its design team. Our experience, understanding of the Clean Water Act, and relationships with state and federal regulators will address this critical portion of the work scope and key schedule element. Further, McGill has committed the necessary resources to accomplish the necessary planning, design, and construction oversight to carry the City's WRRF Expansion project from vision to completion.

The following major project phases are outlined below with corresponding durations. A detailed project schedule is included in Appendix D.

<u>Project Phase</u>	<u>Phase Duration</u>
Conceptual Design	October 2021 – January 2022
Design	January 2022– September 2022
Funding	August 2021 – August 2022
NPDES Engineering Alternative Analysis	October 2021 – December 2021
NPDES Permitting Application	December 2021 – November 2022
Construction	December 2022 – July 2025

Conclusion – Next Steps

To address the growing need for capacity and cost impacts, McGill has assisted Mebane with visioning for the future of the WRRF and funding solicitation. As part of that effort, McGill reviewed previous studies of the facility, performed field reconnaissance at the facility, reviewed operating reports, considered available process treatment technologies, and developed a strategy for proceeding with the facility's future. That effort included developing a process vision for expansion of the facility's capacity, prioritizing reuse of existing facilities (to maintain past investment), analyzing the budget for the expansion, preparing a schematic site plan, and identifying funding resources to support the project. The culmination of the visioning effort is the development of a plan to construct an expanded facility adjacent to the existing facility including an expanded headworks, flow equalization, influent pumping station, a five-stage biological treatment process with final clarifiers, new tertiary filtration, and post-treatment (disinfection and post aeration).

Next Project Steps – Conceptual Design

As part of the next stage of the project, the conceptual design phase, the following tasks will be completed:

1. Utilizing the preferred alternative from the Visioning stage, perform a more detailed preliminary analysis of expansion/upgrade elements needed.

2. Prepare BioWin treatment modeling for the process.
3. Prepare hydraulic modeling for the process to determine piping upgrades and hydraulic profile.
4. Develop a proposed site plan for the expansion.
5. Prepare an opinion of probable cost for the expansion.
6. Develop a technical memo to summarize the project.
7. Review proposed project with City staff at stages during development and upon completion to City Council as necessary.
8. Concurrently, the engineering alternative analysis and permit application for the NPDES permitting will be prepared and submitted.


Enclosures: Appendix A - Oxidation Ditch Alternative
Appendix B – SBR Alternative
Appendix C – CWSRF Cost Estimate
Appendix D – Project Schedule



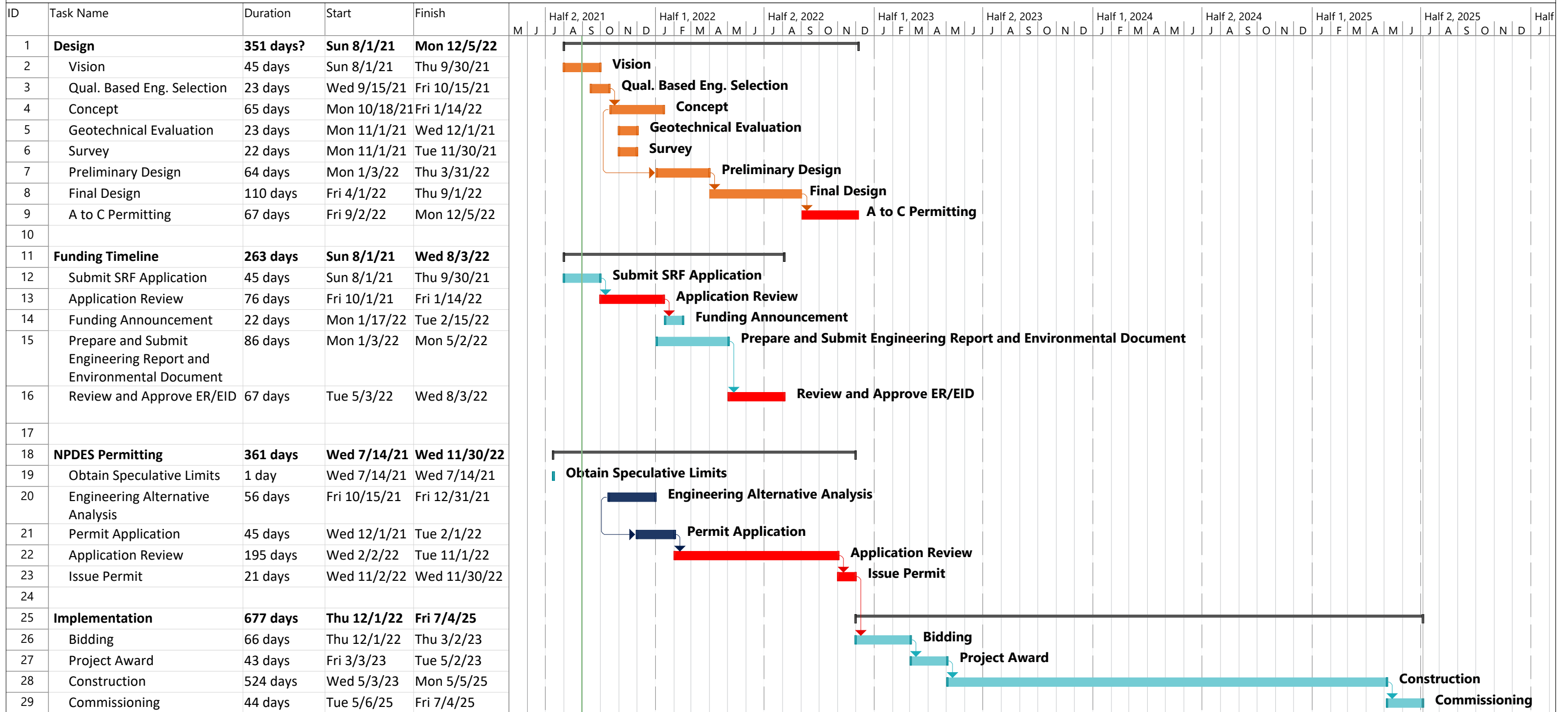
OXIDATION DITCH ALTERNATIVE





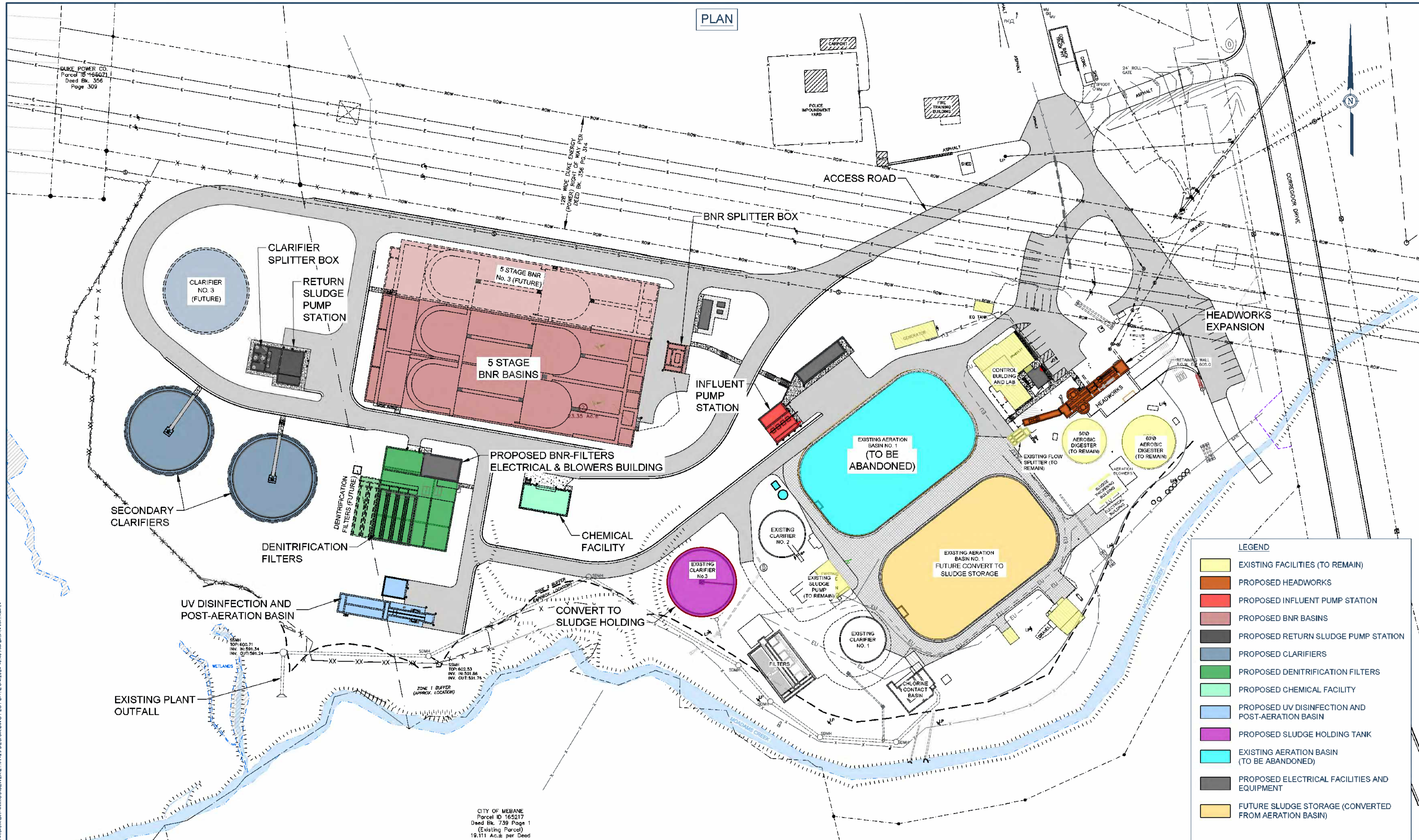
8. Project Budget (for Construction Projects Only)			
Construction Costs	Division Funding Requested	Other Funding	Total Cost Amount
General Costs that Apply to Entire Project			
Mobilization	1,190,000		1,190,000
Site Work and Piping	6,445,000		6,445,000
Electrical and SCADA	4,800,000		4,800,000
Subtotal Costs	12,435,000		12,435,000
Project Elements Replacing Components less than 40 Years Old			
Headworks Expansion	1,760,000		1,760,000
Flow Equalization	1,400,000		1,400,000
Influent Pump Station	1,800,000		1,800,000
Tertiary Filters	4,200,000		4,200,000
Chemical Feeds	1,450,000		1,450,000
Digester Upgrades	900,000		900,000
Subtotal Costs	11,510,000	42.3% of Project	11,510,000
Project Elements Replacing Components greater than 40 Years Old			
Five Stage Treatment	9,900,000		9,900,000
Final Clarifiers	3,000,000		3,000,000
Return Pump Station	1,500,000		1,500,000
Disinfection	1,300,000		1,300,000
Subtotal Costs	15,700,000	57.7% of Project	15,700,000
<i>Contingency (10% of construction costs):</i>	3,965,000		3,965,000
Construction Subtotal:	43,610,000		43,610,000
Engineering Costs			
Engineering Design	4,773,000		4,773,000
Permitting	200,000		200,000
Land Surveying Costs	50,000		50,000
Engineering Subtotal:	5,023,000		5,023,000
Administration Costs			
Planning	100,000		100,000
Geotechnical Evaluation	57,000		57,000
Land Acquisition	750,000		750,000
Loan Administration (if applicable)	100,000		100,000
ER Preparation	100,000		100,000
Environmental Documentation Preparation	60,000		60,000
Legal Costs	200,000		200,000
Closing Costs		1,000,000	1,000,000
Administration Subtotal:	1,367,000	1,000,000	2,367,000
TOTAL PROJECT COST:	50,000,000	1,000,000	51,000,000
<p>A PE Seal for the estimate <i>must be provided</i> in the space to the right for the application to be considered complete.</p>			

Mebane Water Resource Recovery Facility



Project: Mebane WRRF Date: Tue 8/31/21	Task		Project Summary		Manual Task		Start-only		Deadline	
	Split		Inactive Task		Duration-only		Finish-only		Progress	
	Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
	Summary		Inactive Summary		Manual Summary		External Milestone			

PLAN



LEGEND

- EXISTING FACILITIES (TO REMAIN)
- PROPOSED HEADWORKS
- PROPOSED INFLUENT PUMP STATION
- PROPOSED BNR BASINS
- PROPOSED RETURN SLUDGE PUMP STATION
- PROPOSED CLARIFIERS
- PROPOSED DENITRIFICATION FILTERS
- PROPOSED CHEMICAL FACILITY
- PROPOSED UV DISINFECTION AND POST-AERATION BASIN
- PROPOSED SLUDGE HOLDING TANK
- EXISTING AERATION BASIN (TO BE ABANDONED)
- PROPOSED ELECTRICAL FACILITIES AND EQUIPMENT
- FUTURE SLUDGE STORAGE (CONVERTED FROM AERATION BASIN)

CITY OF MEBANE
Parcel ID 165217
Deed Bk. 739 Page 1
(Existing Parcel)
19.111 Ac.± per Deed

P:\2021\101123-MEBANE-WRRF EXPANSION\DRAWING\SERVER\101123 DESIG\DWG PLOT DATE 6/4/2024 10:40 AM BRIAN WHITMAN

1240 19th Street Lane NW
Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com



NO.	DATE	BY	DESCRIPTION

WATER RESOURCE RECOVERY FACILITY
EXPANSION
CITY OF MEBANE
ALAMANCE COUNTY, NORTH CAROLINA

GRAPHIC SCALE: 0 25 50 100
DIVISION VALUE = 50 FEET

OFFICE MANAGER D. CHAPMAN	DESIGNER J. WHITFORD
PROJECT MANAGER J. WHITFORD	REVIEWER -

DATE MAY 2024	PROJECT # 21.01123	FUNDING # N/A
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SHEET
C-102A

EXHIBIT J



AGENDA ITEM #10

Comprehensive Land Development Plan Update

Meeting Date

July 1, 2024

Presenters

Ashley Ownbey, Development Director

Public Hearing

Yes No

Summary

The City of Mebane has contracted with Green Heron Planning, LLC for updates to the comprehensive land development plan. The process of updating the plan will begin in July 2024 and is expected to be completed within 12 to 18 months. Staff are introducing the process and seeking direction from the City Council on establishing a community advisory committee.

Background

The Mebane City Council adopted *Mebane By Design*, the Comprehensive Land Development Plan, in May 2017. The City of Mebane budgeted for updates to the Comprehensive Land Development Plan in the fiscal year 2023-2024. In March 2024, the City issued a request for proposals and received five proposals. After reviewing the proposals, City staff interviewed three of the firms and selected a project team led by Ben Hitchings of Green Heron Planning, LLC and Meg Nealon of Nealon Planning, PLLC.

The process of updating the Comprehensive Land Development Plan is planned to proceed in three phases: 1) discovery, 2) plan development, and 3) direction and documentation. Participation from the community will be critical throughout the three phases. A community advisory committee is part of the community engagement strategy.

Staff are seeking direction from the City Council on how to proceed with appointments to the community advisory committee, which ideally will be established by the City Council at the next meeting in August. The committee will include 10-12 individuals who collectively represent a balance of perspectives. Staff recommends reserving five seats for representatives of the following boards:

- Bicycle and Pedestrian Advisory Commission
- Planning Board
- Racial Equity Advisory Committee
- Recreation and Parks Advocacy Committee
- Downtown Mebane Development Corporation

The remaining seats will be filled by interested community members who apply by July 29. Staff will share the call for applications with various community groups, HOAs, and others who may have interest. The City Council may also elect to have a representative on the committee.

State law requires the Planning Board to make a recommendation on the final draft of the Comprehensive Land Development Plan, with adoption of the final plan by the City Council. An advisory committee often serves as a sounding board for input on public engagement and drafts of major work products. Additionally, these committee members can function as ambassadors to the community for more effective engagement.

The community advisory committee is expected to meet four times during the planning process. Staff will prepare a committee charge and summary of the time commitment to ensure committee members understand their responsibilities and time commitment.

Financial Impact

The City of Mebane already has a contract with Green Heron Planning, LLC for a budgeted amount.

Recommendation

Staff recommend the City Council support the outlined appointment strategy to the community advisory committee.

Suggested Motion

Motion to proceed with the outlined appointment strategy to the community advisory committee for updates to the Comprehensive Land Development Plan.

Attachments

1. N/A



AGENDA ITEM #11

New Third Street Elevated Storage Tank Lighting & Logo Placement

Meeting date

July 1, 2024

Presenter

Kyle Smith, PE- Utilities Director

Public Hearing

Yes No

Summary

Public Utilities is exploring adding uplighting to the new elevated storage tank on S Third Street. We also have two logos in our contract with Landmark Structures and are looking at placement options.

Background

Public Utilities has been looking into the possibility of uplighting for the new elevated storage tank at 1420 S Third Street. We have been exploring uplighting options with the ability to change colors depending upon local events and/or seasons and ability to control remotely. This will give the tank a more aesthetically pleasing appearance at night.

We currently have two City logos in the contract with Landmark. We have looked at the best locations in the field for the logos and advise placing one logo that would be visible from 119 S around the interstate interchange, Maple Ln, and Holmes Rd. In order to make the logo placements uniform we have looked at the option of placing the second logo on the north side of the tank where it will be visible from NCIC. The tank will be visible from the 119 and Hwy 70 overpass but the logo will likely be illegible from this location. The logos will be approximately 35 feet long and 15 feet high.

Financial Impact

The estimated cost for the uplighting will be approximately \$25,000 to \$45,000 for design and \$125,000 to \$160,000 for equipment and installation. We currently have approximately \$150,000 in contingency and \$40,000 in credits due to change orders.

Recommendation

Advise staff if the council prefers to peruse the lighting option and agreement on logo placement. Staff can bring back a full proposal with more refined cost in the fall of 2024.

Attachments

1. Lighting and Logo Placement PowerPoint.



S THIRD STREET ELEVATED STORAGE TANK

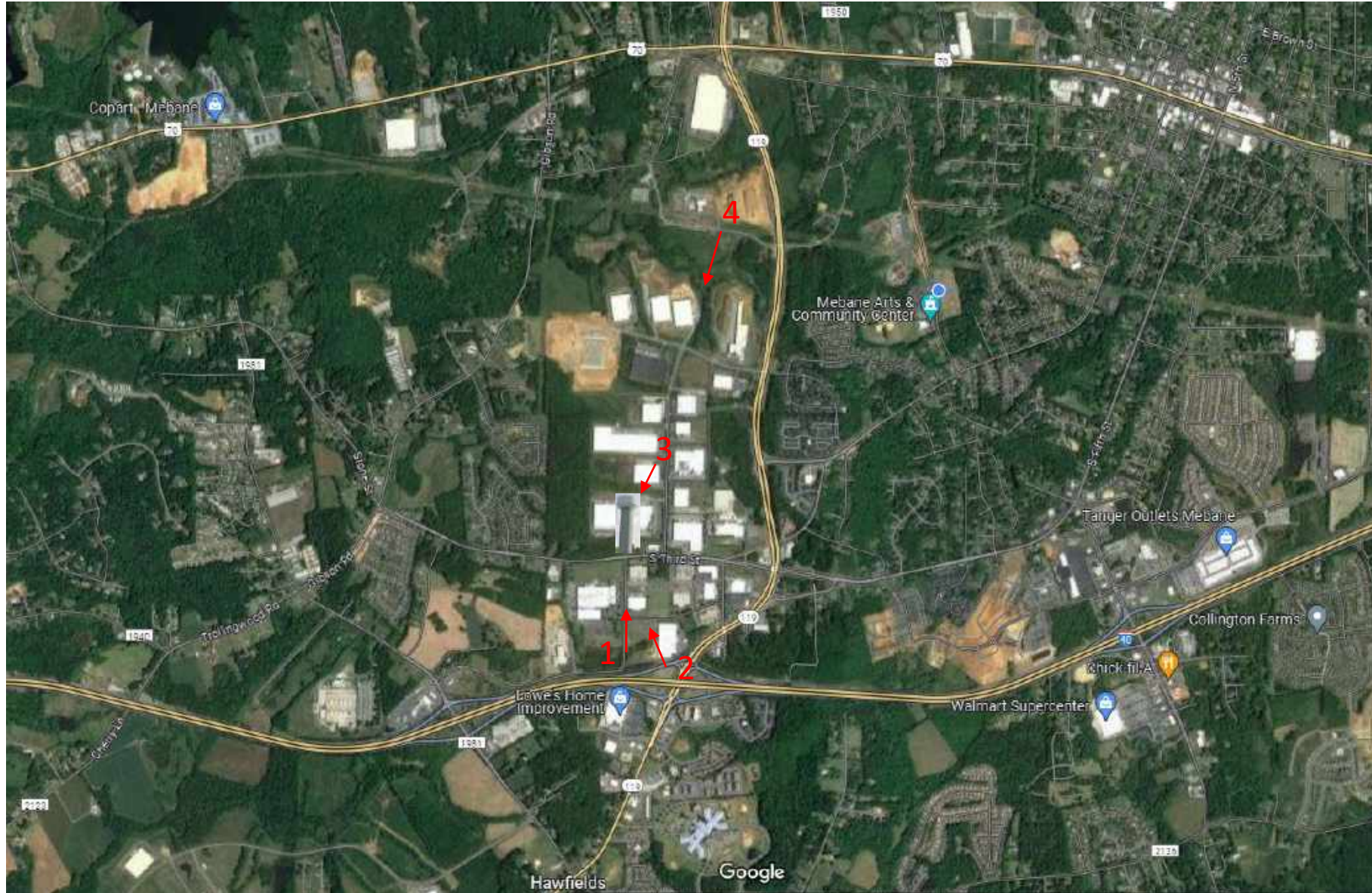
LIGHTING AND LOGO PLACEMENT

TANK LIGHTING





TANK LOGO PLACEMENT





TANK LOGO PLACEMENT



Photo 1 – Maple Lane Looking North –
2,100 Feet



Photo 2 – NC 119 Looking North from
Overpass at I-40 – 2,480 Feet



TANK LOGO PLACEMENT



Photo 3 – Corporate Park Drive
Looking South – 1,200 Feet



Photo 4 – Development Center Drive
Looking South – 1.1 Miles



QUESTIONS?



AGENDA ITEM #12

NCDOT Conveyance of 60 +/--acres- Hwy 119 North

Meeting Date

July 1, 2024

Presenter

Lawson Brown, City Attorney

Public Hearing

Yes No

Summary

NCDOT acquired a number of “excess” acreage in the construction of Highway 119 North, being approximately 60 or so acres which NCDOT has agreed to convey to the City.

Background

When the NCDOT acquired land for the construction of Highway 119, the acquisition resulted in acreage not needed for the actual construction and required right of way for the final re-routing of Highway 119. The excess acreage is approximately 60 acres as shown on the attached map. As City staff has done in the past, assessment of excess NCDOT parcels or acreage has been conducted. As a result of the assessment, staff contacted NCDOT.

Representatives to inquire whether NCDOT would convey the excess acreage to the City at no charge. NCDOT has agreed to convey the property described in the attached deed to the City at no expense to the City except for the recording fee of \$31.

Financial Impact

The immediate expense to the City is the \$31 recording fee. The property will be added to the City's property inventory and will need to be covered by the City's liability insurance policy. No increase in premium is anticipated.

Recommendation

Staff recommends that the City accept the conveyance from the NCDOT at no charge to the City.

Suggested Motion

I move that the City accept the conveyance of the 60 acres from the NCDOT at no expense to the City except the recording cost for the deed.

Attachments

1. Deed from NCDOT to the City
2. Map prepared by AWCK

Excise Tax: Exempt (GS § 105-278.1)

Prepared by: Martin T. McCracken, Special Deputy Attorney General, North Carolina Department of Transportation, Attorney General's Office, 1505 Mail Service Center, Raleigh, NC 27699-1505

Return to: The City of Mebane, 106 East Washington Street, Mebane, North Carolina 27302

The hereinafter described property does not include the primary residence of the GRANTOR.

STATE OF NORTH CAROLINA

COUNTY OF ALAMANCE

TAX PARCEL NUMBER: 9816722231 / 172241

QUITCLAIM DEED

THIS DEED made this the _____ day of _____, 2024, by and between the **DEPARTMENT OF TRANSPORTATION**, an agency of the STATE OF NORTH CAROLINA, 1 South Wilmington Street, Raleigh, NC 27601 (hereinafter "GRANTOR"), and **THE CITY OF MEBANE, 106 East Washington Street, Mebane, North Carolina, 27302** (hereinafter "GRANTEE");

WITNESSETH:

THAT WHEREAS, the Department of Transportation, in the construction of Project No. **U-3109B (34900.2.3)** in **ALAMANCE** County, North Carolina acquired certain lands from **The Estate of Eloise W. Cates by General Warranty Deed** recorded **October 16, 2014** in Deed Book **3371** at Page **499** in the **ALAMANCE** County Registry; and

WHEREAS, the GRANTEE requested the Department to convey the 60.056 acre residual tract to be used by the GRANTEE for the public good; and

WHEREAS, the Board of Transportation has approved this transaction by resolution passed on **October 2, 2023**;

NOW, THEREFORE, for and in consideration of the premises and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the GRANTOR, subject to any reservations and condition hereinafter set forth, has bargained and sold, and by these presents does bargain, sell, grant and convey unto the GRANTEE, its successors and assigns, the below 60.056 acre area described as follows:

SEE EXHIBIT A

This conveyance is made subject to any underground or above-ground utilities in existence at the time of this conveyance to GRANTEE, and is subject to any recorded and/or unrecorded easements, encumbrances or right-of-way, known and visible within the boundaries of the property conveyed hereby. This conveyance is also subject to the above-referenced Highway Project and any Control of Access imposed pursuant to the Project. It is understood and agreed that if the property ceases to be used by The City of Mebane for public use then title to the property shall automatically revert to Grantor, and Grantor shall have the immediate right to re-enter and

terminate all right, title and interest in the property held by the Grantee. The parties further agree that in the event of such reversion, Grantor has the right to demand Grantee execute a deed of reconveyance to Grantor, and Grantee hereby agrees, subject to receipt of necessary approvals and in accordance with applicable law, to execute any such reconveyance document necessary to effectuate the reversion.

TO HAVE AND TO HOLD the above-described lands and premises together with all privileges and appurtenances thereunto belonging to the said GRANTEE, its executors and assigns, free and discharged from all right, title, claim or interest of the DEPARTMENT, and the DEPARTMENT makes no warranty, expressed or implied, as to title to the property hereinabove described.

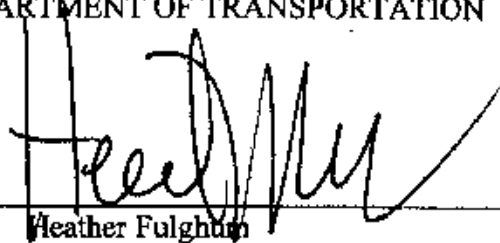
The GRANTOR makes no warranty, express or implied, as to title to the property hereinabove described.

IN WITNESS WHEREOF, the Department of Transportation has hereunto sets its hand and seal on the day and year first above written.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

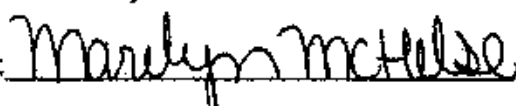
[NCDOT SEAL]

By:



Heather Fulghum
Manager of Right of Way
North Carolina Department of
Transportation

ATTEST:



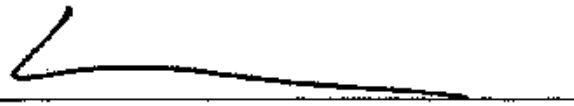
SECRETARY TO THE BOARD OF
TRANSPORTATION AND CUSTODIAN
OF THE SEAL OF THE DEPARTMENT
OF TRANSPORTATION

Approved as to form:

JOSHUA H. STEIN

Attorney General

By:



Special Deputy Attorney General

NORTH CAROLINA

WAKE COUNTY

This day as witnessed below, personally appeared before me, Charles E. Grady III, a Notary Public of said county and state, Marilyn McHilse, who being by me duly sworn, says that she knows the Seal of the Department of Transportation and is acquainted with Heather Fulghum, who is Manager of Right of Way of the Division of Highways of said Department, and that she, Marilyn McHilse, is the Secretary to the Board of Transportation and Custodian of the Seal of the Department of Transportation, and saw said Manager of Right of Way sign the foregoing instrument, and that she, the said Secretary to the Board of Transportation and Custodian of the Seal of the Department of Transportation, affixed said seal to said instrument and signed her name in attestation of the execution thereof in the presence of said Manager of Right of Way.

WITNESS my hand and Notarial Seal, the _____ day of _____, 2023.

Charles E. Grady III

NOTARY PUBLIC

My Commission Expires: March 25, 2026

EXHIBIT A

TRACT ONE

Point of beginning being N 18°10'8.4" E, 1719.965 feet from -L- Sta 220+00 thence along a curve 420.997 feet and having a radius of 1780.000 feet. The chord of said curve being on a bearing of N 37°32'37.6" E, a distance of 420.017 feet thence to a point on a bearing of N 46°40'29.7" E 211.202 feet thence to a point on a bearing of N 47°54'0.9" E 1205.887 feet thence to a point on a bearing of N 39°15'17.5" E 163.066 feet thence to a point on a bearing of S 71°9'23.1" W 496.641 feet thence to a point on a bearing of S 71°11'46.8" W 765.462 feet thence to a point on a bearing of S 71°11'46.8" W 199.997 feet thence to a point on a bearing of S 1°32'34.4" W 705.659 feet thence to a point on a bearing of S 1°6'30.9" W 235.704 feet returning to the point and place of beginning. Having an area of APPROXIMATELY 603310.097 Sqr feet being 13.850 acres.

TRACT TWO

Point of beginning being N 13°45'57.0" E, 1044.763 feet from -L- Sta 220+00 thence to a point on a bearing of N 76°1'16.7" W 17.342 feet thence to a point on a bearing of S 70°38'25.1" W 716.262 feet thence to a point on a bearing of S 15°51'8.4" E 372.330 feet thence to a point on a bearing of S 47°48'4.4" E 199.280 feet thence to a point on a bearing of S 10°20'45.6" W 48.720 feet thence to a point on a bearing of S 21°32'10.6" W 64.180 feet thence to a point on a bearing of S 46°4'5.6" W 216.820 feet thence to a point on a bearing of S 78°3'5.6" W 105.080 feet thence to a point on a bearing of S 89°53'59.6" W 78.580 feet thence to a point on a bearing of N 82°57'54.4" W 223.300 feet thence to a point on a bearing of S 31°55'33.6" W 45.130 feet thence to a point on a bearing of S 13°49'35.4" E 138.670 feet thence to a point on a bearing of S 24°4'9.6" W 23.810 feet thence to a point on a bearing of S 36°1'50.6" W 55.380 feet thence to a point on a bearing of S 57°54'41.6" W 65.850 feet thence to a point on a bearing of S 78°19'42.6" W 118.530 feet thence to a point on a bearing of S 70°40'55.3" W 129.703 feet thence to a point on a bearing

of S 66°20'4.1" W 41.290 feet thence to a point on a bearing of S 78°14'15.1" W 44.490 feet thence to a point on a bearing of N 35°40'4.9" W 108.030 feet thence to a point on a bearing of N 26°55'4.9" W 29.450 feet thence to a point on a bearing of N 13°41'58.9" W 116.350 feet thence to a point on a bearing of N 35°36'55.9" W 80.760 feet thence to a point on a bearing of S 44°40'4.1" W 28.510 feet thence to a point on a bearing of S 73°54'56.1" W 29.740 feet thence to a point on a bearing of S 72°40'48.1" W 33.760 feet thence to a point on a bearing of S 57°10'16.1" W 27.410 feet thence to a point on a bearing of S 35°13'3.1" W 53.680 feet thence to a point on a bearing of S 27°58'11.1" W 79.900 feet thence to a point on a bearing of S 42°8'24.1" W 17.660 feet thence to a point on a bearing of S 44°43'33.8" E 81.131 feet thence to a point on a bearing of S 47°13'29.4" W 25.209 feet thence to a point on a bearing of S 10°2'50.1" E 679.232 feet thence to a point on a bearing of N 63°41'54.8" E 507.427 feet thence to a point on a bearing of S 9°13'16.5" E 506.748 feet thence to a point on a bearing of S 9°9'57.0" E 164.246 feet thence to a point on a bearing of N 23°41'12.1" E 2636.273 feet returning to the point and place of beginning. Having an area of APPROXIMATELY 1176953.440 Sqr feet being 27.019 acres.

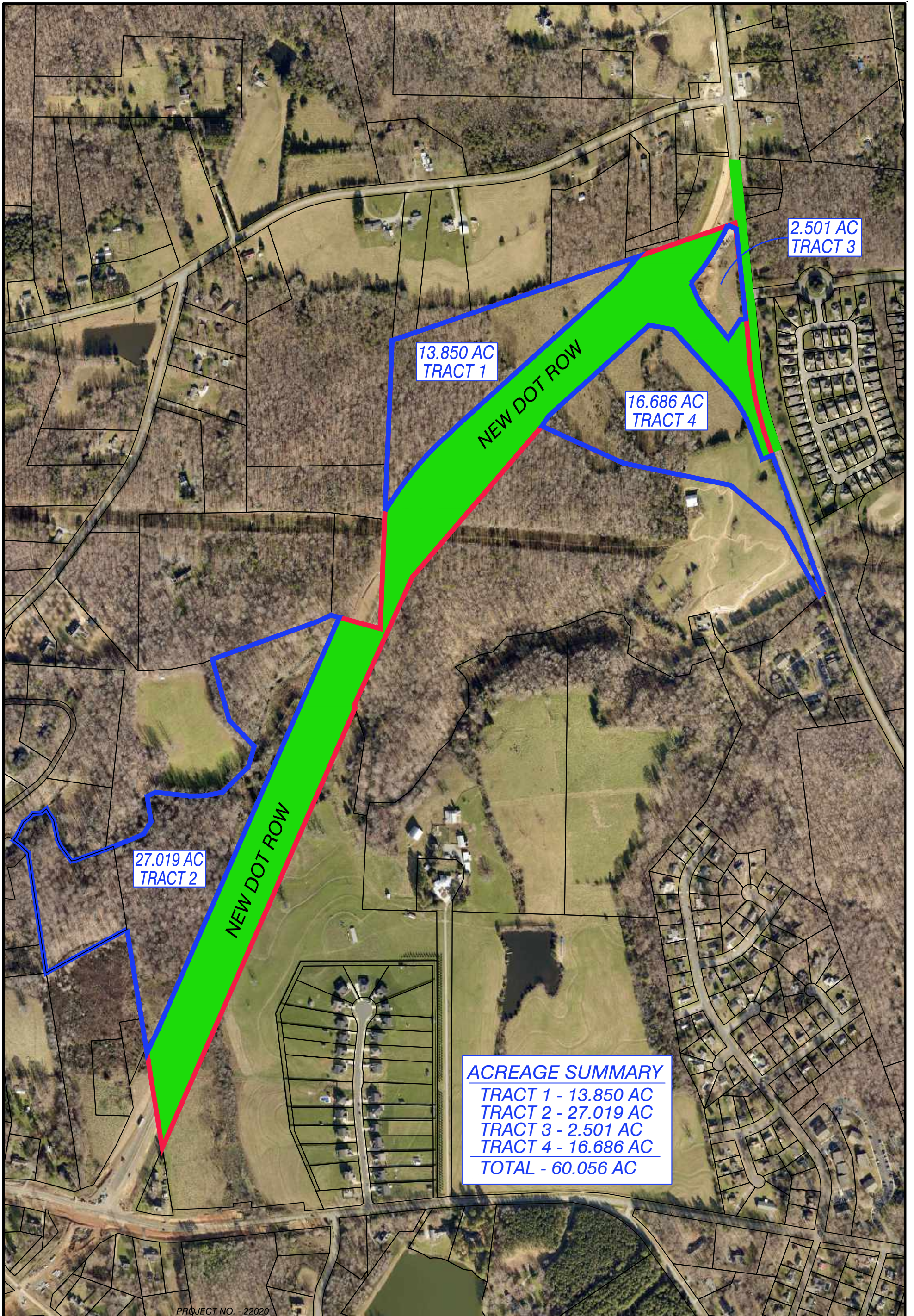
TRACT THREE

Point of beginning being N 56°36'57.8" E, 774.757 feet from -L- Sta 250+00 thence to a point on a Bearing of S 24°18'42.1" E 127.243 feet thence to a point on a bearing of S 38°39'58.0" E 250.450 feet thence to a point on a bearing of N 33°7'47.5" E 128.014 feet thence to a point on a bearing of N 84°4'5.9" E 30.000 feet thence to a point on a bearing of N 5°55'54.1" W 508.513 feet thence to a point on a bearing of N 65°59'27.6" W 53.856 feet thence along a curve 387.917 feet and having a radius of 1330.000 feet. The chord of said curve being on a bearing of S 32°21'52.7" W, a distance of 386.543 feet returning to the point and place of beginning. Having an area of APPROXIMATELY 108953.091 Sqr feet being 2.501 acres.

TRACT FOUR

Point of beginning being S 47°1'28.0" E, 1893.766 feet from -L- Sta 250+00 thence along a curve 40.419 feet and having a radius of 27581.163 feet. The chord of said curve being on a bearing of N 20°15'55.0" W, a distance of 40.419 feet thence to a point on a bearing of N 20°13'23.8" W 536.733 feet thence along a curve 37.803 feet and having a radius of 8533.054 feet. The chord of said curve being on a bearing of N 20°21'0.7" W, a distance of 37.803 feet thence to a point on a bearing of N 20°28'37.6" W 186.511 feet thence to a point on a bearing of S 69°31'22.4" W 70.000 feet thence to a point on a bearing of N 20°28'37.6" W 176.282 feet thence along a curve 277.379 feet and having a radius of 735.000 feet. The chord of said curve being on a bearing of N 31°17'18.3" W, a distance of 275.736 feet thence to a point on a bearing of N 42°5'59.1" W 193.600 feet thence to a point on a bearing of N 42°5'59.1" W 250.000 feet thence to a point on a bearing of N 79°8'37.4" W 136.012 feet thence to a point on a bearing of S 47°54'0.9" W 791.262 feet thence to a point on a bearing of S 23°10'31.5" W 24.993 feet thence to a point on a bearing of S 64°27'18.5" E 496.827 feet thence to a point on a bearing of S 78°5'44.5" E 631.336 feet thence to a point on a bearing of S 48°32'19.7" E 378.442 feet thence to a point on a bearing of S 27°17'51.2" E 418.667 feet thence to a point on a bearing of N 42°32'54.7" E 51.260 feet returning to the point and place of beginning. Having an area of APPROXIMATELY 726836.951 Sqr feet being 16.686 acres.

The above descriptions have been drawn from the Project Plans for State Highway Project identified as Project U-3109B (34900.2.3), in Alamance County now on file in the Offices of the Department of Transportation in Raleigh, North Carolina.



27.019 AC
TRACT 2

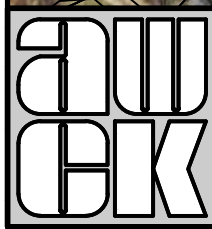
13.850 AC
TRACT 1

16.686 AC
TRACT 4

2.501 AC
TRACT 3

ACREAGE SUMMARY
 TRACT 1 - 13.850 AC
 TRACT 2 - 27.019 AC
 TRACT 3 - 2.501 AC
 TRACT 4 - 16.686 AC
 TOTAL - 60.056 AC

PROJECT NO. - 22020



alley, williams, carmen & king, inc.
 ENGINEERS, ARCHITECTS & SURVEYORS
 740 chapel hill road p.o. box 1179
 burlington, n.c. 27215 336/226-5534
 Firm's Engineering License No. F-0203

EXHIBIT MAP
**NCDOT 119 Property Donation
 to the City of Mebane**
 ALAMANCE COUNTY
 MEBANE, N.C.

SHEET NO. :

1

SCALE: 1" = 500' DATE: 06/24/2024 DWG. BY: MHW OF 1



RESOLUTION

The Council hereby approves the designation of _____ as prescribed by NCGS 160A-150, to exercise the powers and perform the duties of City Manager until the City Manager vacancy is filled. To become effective on July 24, 2024.

Adopted this the 1st day of July 2024.

Ed Hooks, Mayor

ATTEST:

Stephane W. Shaw, City Clerk



The Planning Board meeting was held at the Glendel Stephenson Municipal Building located at 106 E. Washington Street, Mebane, NC 27302 and livestreamed via YouTube. The video can be accessed through the following link: <https://www.youtube.com/watch?v=BekW8RwMXCY>

Members Present:

Judy Taylor, Vice Chair
Colin Cannell
David Scott
Gale Pettiford
Susan Semonite
William Chapman

Members Absent:

Edward Tulauskas, Chair
Keith Hoover
Kurt Pearson

City Staff Present:

Ashley Ownbey, Development Director
Rachel Gaffney, City Planner
Briana Perkins, City Planner
Kirk Montgomery, IT Director

1. Call to Order

At 6:30 p.m. Vice-Chair Taylor called the meeting to order.

2. Approval of May 13, 2024, Meeting Minutes

Susan Semonite made a motion to approve the meeting minutes. David Scott seconded the motion, which passed unanimously.

3. City Council Actions Update

Ashley Ownbey informed the Board that the proposed McDonald's on N. First Street was denied with a (3-2) vote. She said that the applicant requested a continuation for the proposed Tractor Supply to the July City Council meeting. She also provided that the City Council approved amendments to the Mebane Unified Development Ordinance and watershed boundary.

Colin Cannell asked Ms. Ownbey to report why the City Council denied the special use request for the proposed McDonald's. Ashley Ownbey replied that the basis of denial was harmony with the surrounding area with reference to the Council's previous decision to not allow restaurants with drive-throughs on the outparcels.

4. Request to rezone a +/- 2.048-acre parcel (GPIN 9815840394), located at 506 West Holt Street, from R-8, Residential District, to HM(CD), Heavy Manufacturing Conditional District, to allow for Outdoor Storage by Norris Family Investments 2 LLC.

Norris Family 2, LLC is requesting approval to conditionally rezone the +/- 2.048-acre property located at 506 W Holt Street (GPIN 9815840394), from R-8 to HM (CD) to allow for outdoor storage, including a construction material laydown yard, by the adjacent industrial business, The Building Center. The property is located within Alamance County in City limits.



Requested Condition:

- Reduction of landscape buffers on the west, south, and southeast sides of the property to a minimum of 20-feet, as shown on the site plan. Part of the reductions are caused by a 68-foot Duke Energy easement and a 20-foot City of Mebane sewer easement.

The staff report is provided in the meeting agenda packet available [here](#).

Rachel Gaffney provided a more detailed overview and PowerPoint presentation of the request.

Jonathan Sossamon Jr., representative for Norris Family Investments 2 LLC, stated that the proposal was for a less than a half-acre laydown gravel yard for building materials. He explained the requested condition of 20-foot-wide landscape buffers due to the Duke Energy and City of Mebane sewer easements. He provided that the easements occupied approximately 0.15 acre of the 2.04-acre lot which reduced the area to just over an acre. He next stated that there was a neighbor at 500 W. Holt Street who had agreed for them to move his driveway back onto his property free of charge. Last, he stated that on October 18, 2023, there were letters sent out for a neighborhood meeting that was held on November 2, 2023, with no one in attendance.

Colin Cannell asked if the property at 500 W. Holt Street who was most affected by the development was okay with the project. Jonathan Sossamon replied that they had spoken with that neighbor to move his driveway and the owner seemed okay with the development. Colin Cannell commented on a steep slope at the driveway. Jonathan Sossamon said that the North Carolina Department of Transportation would require a swale and culvert for the driveway.

Colin Cannell asked about the condition to reduce buffer requirements which he found understandable for the site as proposed and asked about other uses in the future. Ashley Ownbey replied that the zoning was for the site-specific plan that did not show structures on the site. She said that staff could not approve construction of a building on the site without going back to the Planning Board and City Council.

William Chapman asked about additional noise associated with the site other than The Building Center's current operations. Jonathan Sossamon replied that there was no additional noise associated with the site.

David Scott made a motion to approve the request as follows:

Motion to approve the HM(CD) zoning as presented.

Motion to find that the application is consistent with the objectives and goals in the City's 2017 Comprehensive Land Development Plan Mebane By Design. Specifically, the request:



- *Is for a property within the City's G-1 Downtown Mixed-Use Area and in a generally industrial area (Mebane CLP, p. 68).*

William Chapman seconded the motion, which passed unanimously.

Vice-Chair Taylor noted that the request will go to the City Council on July 1, 2024, at 6:00 p.m.

5. Request to rezone the +/- 43.32-acre property located on Saddle Club Road (GPIN 9826612172), from R-20 to R-12 (CD) to allow for a residential cluster subdivision with 110 single-family homes and a public park by Slippery Elm Properties, LLC.

Slippery Elm Properties, LLC is requesting approval to conditionally rezone a +/- 43.32-acre property from R-20, Residential District to R-12 (CD), Residential Conditional District, to allow for a residential cluster subdivision of 110 single-family homes and a public park. The property is located in Orange County outside of City Limits within the Mebane Extraterritorial Jurisdiction (ETJ). Annexation of the property is required before connection to City utilities. The applicant has the property under contract to purchase, contingent upon approval of the conditional rezoning request.

Requested Conditions:

- A 20' rear setback for Lots 6 – 14 and Lot 60 and a minimum 50' lot width for all lots.
- Dedication of +/- 5.19 acres of land for public recreation area. The site plan shows +/- 7.32 acres of qualifying private common open space. The amount of land shown as public recreation area and private open space totals +/- 12.51 acres.

The staff report is provided in the meeting agenda packet available [here](#).

Ashley Ownbey provided a more detailed overview and PowerPoint presentation of the request.

Carla Sevilla, with Glenwood Homes and representing Slippery Elm Properties, said she had worked with other subdivisions in Mebane such as Collington Farms, Ashbury, and Arrowhead. She said that the Saddle Club Subdivision was a proposed cluster development with 110 single-family homes and over 5-acres of dedicated for public recreation to the City of Mebane. She stated that the subdivision would be pedestrian friendly with internal sidewalks connecting to the public recreational area trail, Lebanon Road Trail, and the Tupelo Junction Subdivision. She also provided that the property was surrounded by other subdivisions such as Havenstone, Mallory Place, Tupelo Junction, The Retreat at Lake Michael, and the Village at Lake Michael.

Tyler Wagner, Project Engineer with FEI Civil Engineers and Land Surveyors, reviewed proposed conditions for the project.

Carla Savilla stated that there was a neighborhood meeting held on Friday, June 7 from 4-6 p.m. over Zoom. She reported a good turnout and that neighbors voiced some concerns. During the meeting,



she asked neighbors for input on whether to offer the volleyball courts or pickleball courts in the public park with only one person stating they would rather have pickleball courts.

Carla Savilla stated that Glenwood Homes constructed the last section of Ashbury and those homes are similar to what they are proposing in the Saddle Club subdivision with homes built for an entry level buyer. She then spoke to the proposed amenities of the development and reviewed the possibility of changing from volleyball courts to four to six pickleball courts with approval from the City of Mebane.

Colin Cannell asked if he understood the site plan correctly that showed a steep grade between the housing area and the public recreation area.

Tyler Wagner replied that the current lot was a steep hill, and the plan was to elevate the public recreation area to allow the sewer to drain out to Lebanon Road. The steeper slope between the housing and recreation area creates a better buffer between the two areas.

Colin Cannell also asked why there was not an internal sidewalk connection to the recreation area between lots 37 and 38. He commented that residents would have to leave the subdivision in order to access the recreation area.

Tyler Wagner replied that they had thought about a connection initially with a trail in the middle of the subdivision and found the idea was not feasible and would not be compliant with ADA standards. He said that the site was too steep and building it out to make it ADA compliant, would require the loss of a lot and volleyball court. Colin Cannell asked what the actual grade was between the residential and recreation areas. Tyler Wagner replied that he did not know the exact number but knew that it was greater than ten feet.

Colin Cannell asked if the private open space would remain a meadow or be graded and mowed. Tyler Wagner replied that the plan involves minimal grading for the walking trail and stormwater infrastructure. Colin Cannell asked at what stage it would be determined if stormwater measures would be required. Tyler Wagner replied the decision would occur in the engineering design stage.

Colin Cannell asked if he was correct in understanding that the lot sizes were similar to those in nearby developments such as Havenstone and The Retreat at Lake Michael. Tyler Wagner said yes, the lots were similar size.

David Scott asked what was priced as entry level. Carla Savilla replied that it depended on the market and building costs with an estimated entry level of \$300,000.

Judy Taylor voiced the same concern as Colin Cannell about residents having to leave the subdivision to access the recreation area. She asked if they had considered losing a lot to create the path from the neighborhood. Carla Savilla shared concerns from the neighborhood meeting about the public entering the neighborhood and reiterated that the design is limited mostly from an engineering standpoint. Tyler Wagner said that the development would have to lose more than one lot due to



the steep slope of the site. Judy Taylor commented that she felt that the proposed plan did not meet the intent of a cluster development that had homes closer together for a larger shared open space. She said that without the internal connection to the public recreation area, the benefit of the cluster development would be lost.

Colin Cannell also commented that with the public recreation area separate from the residential area, the residents may not recognize that space as theirs. Ashley Ownbey shared staff's concerns about a connection between the neighborhood and public recreation area, noting recent issues including homeowners installing fences in the space meant for the path and complaints of people deviating from the path into private yards. Tyler Wagner stated that the sidewalk along Saddle Club Road was going to be about 10-15-feet off the road due to a current NCDOT drainage ditch.

Judy Taylor asked if the City would be maintaining the public recreation area once built. Tyler Wagner replied that the City would be maintaining the park once completed.

David Scott commented that he would respect the neighbors who did not want the people from the recreation area coming into their neighborhood. Judy Taylor replied that she did not think it was a concern since she also had people in front of her house coming from the Mebane Community Park and did not see why the City would encourage the mindset of not allowing the public into neighborhoods.

Susan Semonite asked what the timeline would be for each phase of construction and if it was a five to ten year plan or immediate. Carla Savilla replied that they plan to construct within 24 months depending on weather.

Susan Semonite asked to confirm that there were no proposed road improvements and no traffic impact analysis (TIA) required. Tyler Wagner replied that she was correct in that no road improvements and TIA were required. Ashley Ownbey replied that a TIA was required and completed.

Gale Pettiford asked why an updated TIA was not required since the TIA provided was from July 2021. Ashley Ownbey replied that a new TIA was not required due to the recent development of Tupelo Junction North who completed a TIA in 2022 that included the proposed Saddle Club subdivision as background traffic. She said that the TIA for Tupelo Junction North included most of the same information as the Saddle Club subdivision TIA and the developer of Tupelo Junction North is required to install a traffic signal at the intersection of Lebanon Road and Stagecoach Road.

Vice-Chair Taylor opened the floor for public comment.

George Thekis, 2000 Saddle Club Road, was concerned with the density of housing on the property compared to larger lots in the area and taxes going up to cover City infrastructure.

Karen Baker, 5050 Talisker Trail, questioned if utility easements would be needed from neighbors, if adjacent properties would get annexed involuntarily, how Orange County's zoning was determined



originally, and why the R-20 zoning could not be kept with similar low-density properties abutting it. She also was concerned about pollution, increased traffic, and trespassing.

Jessica Farrell, 2145 Saddle Club Road, was concerned about traffic, pollution, and crime. She was concerned about the outdated TIA since there was excessive speeding along Lebanon Road.

Kelly Long, 2259 Saddle Club Road, opposed the rezoning from R-20 to R-12 and asked why 94 homes in R-20, only 16 homes different from the proposal was not an option. She also commented that the volleyball and pickleball courts would be appreciated, but not another soccer field.

Beth Carlton, 2565 Saddle Club Road, was concerned with the area changing from primarily rural to highly developed. She was also concerned with the City infrastructure and asked for more controlled growth.

Tom Ortel, 5050 Talisker Trail, asked who was responsible for the open area and recreation area maintenance. He was concerned with light and noise pollution, water flow after grading, infrastructure, and increased traffic. He also mentioned that Talisker Trail was a private road and worried that the public would use that road to access the public recreation area.

Deanna Yates, 7041 Fisher Trail, was concerned with traffic due to speeding on Lebanon Road, crime at the recreation area, and the houses not being maintained after a few years.

Lisa Torkewitz, 3220 Spoon Lane, was concerned with small lots not conducive to new families who need the space.

Meredith Ragsdale, 2123 Saddle Club Road, was concerned with traffic and asked who covers emergency services in the area.

Michael Vaughn, 2259 Saddle Club Road, expressed support for keeping the zoning R-20 instead of R-12 and was concerned with noise pollution, light pollution, and additional traffic.

Jim Deeney, 3205 Spoon Lane, voiced that he wanted the zoning to stay as R-20.

Johna Bass, 1622 Saddle Club Road, commented that the proposed development was too dense for the area, asked who would maintain the security of the public restrooms, and how these essentially "row houses" will look in 20-30 years.

Ronald Shields, 2510 Saddle Club Road, introduced himself as a retired developer and commented that the transition from the larger rural lots to the small cluster lot was too much for the infrastructure.

Pat Rice, 2000 Saddle Club Road, mentioned that Saddle Club Road was named after her father's business and her family still lives along Saddle Club Road. She expressed concerns with the noise and light pollution from the soccer field.



David Scott asked staff if there were any plans to light the soccer field. Ashley Ownbey replied that the only planned lighting is for the parking lot and the soccer field was designed for pick-up soccer since the fields at the Mebane Community Park are often occupied for official games.

Sherri Rapp, 616 Casey Ln, expressed concerns with the overcrowding in the area with this development on top of others already in construction. She was also concerned with chemicals and construction waste going into neighboring well water.

Larry Dragoo, 3007 Saddle Club Road, said that the reason the public recreation was located in that area instead of in the middle of the development, was because that portion of the property was not buildable.

Avis Rice, 1600 Saddle Club Road, said that her family owned several parcels of land in the area and expressed concerns with the noise pollution from the public recreation, the necessity of another soccer field, and the crime that comes with having 24-hour public restrooms.

Carla Savilla acknowledged the neighbors' concerns. She explained that her company Glenwood Homes was trying to construct much needed workforce housing. She said that the local area was 17,000 rooftops short for affordable housing. She addressed a public comment about homes in Ashbury, stating that Glenwood had only constructed the most recent homes. She also said that the soccer field was added to the recreation area at the request of the City's Recreation and Parks Department and that other options could be explored with the City.

Gale Pettiford asked about the who would be policing the new development. Ashley Ownbey replied that most of the properties along Saddle Club Road were outside of City limits and would be covered by Orange County Sheriff. She said that the proposed development would require annexation into the City, meaning the Mebane Police Department would serve the new development as properties that pay City taxes receive City police service.

Colin Cannell asked about comments regarding utilities possibly crossing private property. Tyler Wagner replied that currently there were no utilities shown to cross over other properties, but there may be a need closer to Lebanon Road to get easements from neighbors. He said that they would work to stay within the right-of-way.

Colin Cannell asked who controls speeding along Lebanon Road since that was another major concern from neighbors. Ashley Ownbey replied that Lebanon Road is maintained by the State and a speed limit reduction must go to the NCDOT.

Colin Cannell said that there was a neighbor who had concerns about who maintains portions of the site, either the City or HOA. Tyler Wagner replied that the meadow area and anything to the north of the Duke Power easement would be HOA-maintained. Colin Cannell asked if the public recreation portion would be a separate parcel owned by the City of Mebane. Tyler Wagner replied the property would be subdivided, and that parcel would go to the City of Mebane. Susan Semonite asked if she



understood that the HOA was maintaining the meadow, but there was essentially no access to it except from the public recreation area. Tyler Wagner replied that she was correct.

Colin Cannell noted another concern from neighbors was the water drainage and asked how the development would address that issue. Tyler Wagner replied that they had acknowledged those concerns, which were expressed at the neighborhood meeting, and that the drainage would be addressed during the engineering stage to make sure it was not an issue.

Susan Semonite made a motion to deny the request as follows:

Motion to deny the R-12(CD) rezoning as presented due to a lack of

a. Harmony with the surrounding zoning

Gale Pettiford seconded the motion.

Colin Cannell asked for further discussion. He said that there had been neighbors that reached out online to the Planning Board and one of the comments was that the Board was being bribed to pass these developments. Colin Cannell reiterated that the Planning Board was completely voluntary and that they did not receive any payment or bribes for their recommendations. He explained that there was a housing shortage in Orange County like the applicant had described. He provided that rents in Orange County had gone up 55% in the last five years, 24% in the last year alone, and the average house for sale in Orange County lists at \$500,000 and stays on the market for nine days. He commented on the supply and demand ratio that has led to mill houses in Hillsborough being sold for \$500,000 since the demand does not match the supply. He said that the type of development proposed was similar to other developments already approved in the area. Colin Cannell then addressed that the neighbors surrounding the property had lived next to a real estate asset that had not been developed but could have at any time. He said that the owners were going to cash out at some point, and the City had an opportunity with this development to lock in the large open space that will not happen with an R-20 development.

A vote was held on Ms. Semonite's motion, ending with a 3-3 tie. Vice-Chair Taylor, Susan Semonite, and Gale Pettiford voted in favor of the motion to deny the request. Colin Cannell, David Scott, and William Chapman voted against the motion.

Vice-Chair Taylor noted that the request will go to the City Council on July 1, 2024, at 6:00 p.m.



6. Request to establish HM(CD), Heavy Manufacturing Conditional, zoning on two properties (GPINs 9834568820 and 9834475147), totaling +/- 83.368 acres, addressed 508 and 510 Buckhorn Road, and located outside of the Mebane Extraterritorial Jurisdiction (ETJ) in Orange County for a trucking/freight terminal by Orange County Investors Partnership.

Orange County Investors Partnership is requesting a conditional rezoning to HM(CD) to develop a trucking and freight terminal on a site area totaling +/- 83.368 acres and addressed at 508 and 510 Buckhorn Road. The properties are located outside of the Mebane Extraterritorial Jurisdiction (ETJ) in Orange County. A request for annexation into the City of Mebane has been submitted concurrently with the rezoning request. The applicant plans to combine Tract 1 and Tract 3 to create the total site area.

The staff report is provided in the meeting agenda packet available [here](#).

Rachel Gaffney provided a more detailed overview and PowerPoint presentation of the request.

Dave Pokela, attorney with Maynard Nexsen of Greensboro, introduced himself as representation for R + L Carriers. Mr. Pokela also introduced Mike Fox who was representing the owner Orange County Investors Partnership, Sam Mullikin, Director of Construction for R+L Carriers, Austin Watts, civil engineer with Kimley Horn, Earl Lewellyn, traffic engineer with Kimley Horn, and Shannon Craven with Kimley Horn. He explained that the rezoning was for a truck and freight terminal for R+L Carriers. He said that the plan had gone through the Technical Review Committee (TRC) four times and had a solid plan for the Planning Board to look at for recommendation to the City Council. Dave Pokela explained that the current zoning of Orange County EDB-2, Economic Development Buckhorn Development Higher Intensity was consistent with the proposed Mebane zoning of HM, Heavy Manufacturing. He mentioned that the zoning was also consistent with the City of Mebane's Comprehensive Plan *Mebane by Design* and subsequently the "Buckhorn Area Plan" by Orange County.

Dave Pokela stated a neighborhood meeting was held on May 23, 2024, via Zoom. He said that seven individuals attended and they had a good discussion on light pollution, landscape buffers, timeline, and safety.

Sam Mullikin, representing R+L Carriers, explained that R+L Carriers was an LTL (Less Than Loaded) logistics company which means they could deal with large manufacturers or small residential. He provided a brief history of the company. He explained that the facilities are built to be cleanly designed with maintained landscaping. He said that there would be a loading dock, a service center with primarily administrative offices, and a small maintenance shop. Sam Mullikin said that the facilities were cleaned on a regular basis and have inspections every six months. He also said that this facility would include a two-lane fuel station to relieve local facilities. He also provided that some facilities had new housing developments built after their facilities were in operation showing that they maintained nice facilities where neighborhoods could be built nearby.



Austin Watts, engineer with Kimly Horn, presented that per the City of Mebane's ordinance the use type fell under Heavy Manufacturing. He stated that the proposed use was not something noxious like a tannery manufacturer. He also reiterated that the approval was site-plan specific so another developer could not come in with a tire manufacturing business without going back through the review process.

Austin Watts showed the site plan with the main terminal and a proposed future expansion area. He also explained the extensive landscaping plan with a 125-foot buffer against the residential development to the southeast of the site. He indicated locations of the maintenance building, truck wash, and fuel canopy. Austin Watts provided that all lighting would be interior to the site per local ordinance and would all be cutoff to have no spill-over into adjoining properties. He said that truck traffic should take the Interstate with limited desire to travel West Ten Road given that all services would be provided on site for weighing and fueling.

Earl Lewellyn, traffic engineer with Kimley Horn, said that separate TIAs were conducted for R+L Carriers and the next project on the agenda. He explained the requirements for a southbound left turn lane, northbound left turn lane, and a northbound right turn taper at the site driveway.

Colin Cannell asked about the closing timeframe for the current flea market. Dave Pokela said that the due diligence period ends July 3 and the property closing would be within 15 days of the end of due diligence.

Susan Semonite asked about how the weigh station worked and if the trucks would still be required to visit the station on the Interstate. Sam Mullikin replied that the trucks would be weighed coming and going out of the site with a scale that is up to NCDOT standards so that the trucks did not have to go through the weigh station on the Interstate.

Vice-Chair Taylor asked if the Interstate was taken into consideration with trucks going off the exit and those moving over to the weigh station. Earl Lewellyn replied that with a project of that scale trucks would be added in consideration, but the net increase was not as dramatic as some other projects where they have done weaving analysis. Sam Mullikin also added that the truck shifts are staggered so trucks would not be leaving at the same time.

Vice-Chair Taylor also asked if the facility was operating 24 hours. Sam Mullikin replied that yes, it was a 24-hour facility, but with limited capacity on certain shifts.

Vice-Chair Taylor opened the floor for public comment.

Don Compton, 2207 Mt. Willing Road, was concerned with truck congestion going onto the Interstate, toxic waste overflowing the stormwater pond into local well water, and noise pollution.

John Lopiccio, 5637 Preston Loop, shared concerns about property values and noise pollution.

Chris Benjamin, of 5627 Preston Loop is currently in trucking business and shared that he did not want R+L Carriers to be like other trucking facilities, such as Ward Trucking in Raleigh, that are sitting



empty. He was concerned with noise pollution, light pollution, the smell of diesel, and chemical waste.

Jeff Hewlings, 5635 Preston Loop, said that the engineer spoke about a 100-foot landscape buffer in the neighborhood meeting, but spoke about a 125-foot buffer at this meeting. He indicated that he had many of the same concerns already expressed and wanted to make sure there was an adequate buffer.

Tom Boney Jr., with Alamance News, asked for clarification of the freight and trucking service and the service center. Sam Mullikin replied that the service center was the maintenance building and there was also a service center with administration.

Tom Boney Jr. also asked what the square footage of the planned trucking area was, and how many doors it had. Ashley Ownbey referenced the site plan and replied that the truck terminal was 135,950 square feet with 202 doors. She said that the future building was proposed at 53,600 square feet with 81 doors.

Tom Boney Jr. asked the City Staff if the rezoning included the current proposed building and the future expansion. Ashley Ownbey replied that yes, the rezoning request includes both.

Tom Boney Jr. asked about the estimated number of employees for the new facility. Sam Mullikin replied that it would be about 130 dock workers, 12-15 maintenance staff, 10-15 support staff, and likely 20-30 more jobs with the expansion.

Tom Boney Jr. also asked about the number of trucks and the timeline for construction. Sam Mullikin replied that there would be about 120 trucks and the timeframe would be 18-24 months for construction depending on environmental constraints.

David Scott asked Austin Watts about the process of collecting the wastewater runoff from the site. Austin Watts replied that there would be swales directing water to an underground network going to the wet pond at the back to be treated and discharged into the stream. A neighbor from the audience asked if the water would be treated by plants. Austin Watts stated there were four bays the water went to first to settle out, then to another pond with plants. He said that if there was a spill at the maintenance or fuel areas, drains would bring the waste to an oil separator before discharging.

Chris Benjamin asked if there were any buildings that R+L Carriers were not using. Sam Mullikin replied that there were no vacant facilities under R+L Carriers.

Vice-Chair Taylor asked how long trucks would stay idle while being loaded. Sam Mullikin replied that it would be very minimal, and the trucks would be turned off while parked.

Colin Cannell made a motion to approve the request as follows:

Motion to approve the HM(CD) zoning as presented.



Motion to find that the application is consistent with the objectives and goals in the City's 2017 Comprehensive Land Development Plan Mebane By Design. Specifically, the request:

- *Is for a property within the City's G-2 Industrial Area and is part of the Buckhorn Economic Development District (Mebane CLP, p. 76); and,*
- *Serves Growth Management Goal 1.7 through the support of industrial development at existing and developing industrial parks near I-40/85 (p. 17 & 84).*

David Scott seconded the motion, which passed unanimously.

Vice-Chair Taylor noted that the request will go to the City Council on July 1, 2024, at 6:00 p.m.

7. Request to establish LM(CD), Light Manufacturing Conditional, zoning on five properties (GPINs 9834454342, 9834357585, 9834357650, 9834357666, and 9834357842), totaling +/- 49.25-acres, and located outside of the Mebane Extraterritorial Jurisdiction (ETJ) in Orange County by Orange County Investors Partnership.

Orange County Investor Partnership is requesting to establish LM(CD), Light Manufacturing Conditional District, zoning on five properties (GPINs 9834454342, 9834357585, 9834357650, 9834357666, and 9834357842), totaling +/- 49.25 acres, and located outside of the Mebane Extraterritorial Jurisdiction (ETJ) in Orange County, for a future light industrial development. A request for annexation into the City of Mebane has been submitted concurrently with the rezoning request.

The staff report is provided in the meeting agenda packet available [here](#).

Briana Perkins provided a more detailed overview and PowerPoint presentation of the request.

Mike Fox, attorney with Tuggle Duggins representing Orange County Investors Partnership, said that this site was in conjunction with the R+L Carriers site using the same engineers and participating in the joint neighborhood meeting. He said that the proposed plan did not have a defined user like R+L Carriers which is why there was a request for flexibility. He said that the owner did intend the user to be more like a warehouse distribution.

Vice-Chair Taylor asked if a final site plan would come back to the Planning Board once there was a specific user and if there would definitely be driveways on Buckhorn Road and West Ten Road. Mike Fox replied that the driveway approvals would be up to NCDOT. The developer's preference at this time is for the two driveways.

There were no comments from the public on the request.

David Scott made a motion to approve the request as follows:

Motion to approve the LM (CD) zoning as presented.



Motion to find that the application is consistent with the objectives and goals in the City's 2017 Comprehensive Land Development Plan Mebane By Design. Specifically, the request:

- *Is for a property within the City's G-2 Industrial Area and is part of the Buckhorn Economic Development District (Mebane CLP, p. 76); and,*
- *Serves Growth Management Goal 1.7 through the support of industrial development at existing and developing industrial parks near I-40/85 (p. 17 & 84).*

Susan Semonite seconded the motion, which passed unanimously.

Vice-Chair Taylor noted that the request will go to the City Council on July 1, 2024, at 6:00 p.m.

8. Announcements

Ashley Ownbey informed the Board that City offices would be closed on Wednesday, June 19. She also reminded the Board that the annual elections for the Planning Board Chair and Vice-Chair would occur at the next regular meeting. Ashley Ownbey also informed the Board that it was Rachel Gaffney's last meeting.

Colin Cannell discussed procedures and asked for clarification on the Saddle Club vote that ended with a tie. The Board agreed that the tied vote should proceed to the City Council.

9. Adjournment

Vice-Chair Taylor adjourned the meeting at approximately 9:14 p.m.